

# P-InProceedings

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## References

- [1] On the computational complexity of spiking neural P systems. In Cristian S. Calude, José Félix Costa, Rudolf Freund, Marion Oswald, and Grzegorz Rozenberg, editors, *Proceedings of the 7th international conference on Unconventional Computing*, volume 5204 of *Lecture Notes in Computer Science*, pages 189–205, 2008.
- [2] Parosh Aziz Abdulla, Giorgio Delzanno, and Laurent Begin. On the qualitative analysis of conformon P systems. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 78–94, 2009.
- [3] Oana Agrigoroaiei and Gabriel Ciobanu. Dual P systems. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 95–107, 2009.
- [4] Joaquín Aguado, Tudor Balanescu, Tony Cowling, Marian Gheorghe, and Florentin Ipate. P systems with replicated rewriting and stream X-Machines. In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [5] S. Aguzzoli, I.I. Ardelean, D. Besozzi, B. Gerla, and C. Manara. P systems under uncertainty: the case of transmembrane proteins. In *First brainstorming Workshop on Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004*, 2004.
- [6] S. Aguzzoli, D. Besozzi, B. Gerla, and C. Manara. P systems with vague boundaries: the t-norm approach. In *First brainstorming Workshop on Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004*, 2004.

- [7] M. Alfonseca, C. Castaneda Marroquin, M. De La Cruz Echeandia, R. Nunez-Hervas, and A. Ortega de la Puente. Multithread java P systems running on a cluster of computers. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 94–101, 2005.
- [8] Gordon Alford. Membrane systems with heat control. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [9] A. Alhazov. Number of proton/bi-stable catalysts and membrane in p systems. time freeness. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 102–122, 2005.
- [10] A. Alhazov. Minimal parallelism and number of membrane polarizations. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 74–87, Leiden, The Netherlands, 2006.
- [11] A. Alhazov, R. Freund, and M. Oswald. Symbol/membrane complexity of p systems with symport/antiport rules. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 123–146, 2005.
- [12] A. Alhazov, R. Freund, M. Oswald, and M. Slavkovik. Extended spiking neural p systems generating strings and vectors of non-negative integers. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 88–101, Leiden, The Netherlands, 2006.
- [13] A. Alhazov, R. Freund, M. Oswald, and S. Verlan. Partial versus total halting in p systems. In M.A. Gutiérrez-Naranjo, Gh. Paun, A. Romero-Jimenez, and A. Riscos-Nunez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 1–20, Sevilla (Spain), January 29th - February 2 2007.
- [14] A. Alhazov, R. Freund, and A. Riscos-Nunez. One and two polarizations, membrane creation and objects complexity in p systems. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 9–18, 2005.
- [15] A. Alhazov and Y. Rogozhin. Towards a characterization of p systems with minimal symport/antiport and two membranes. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 102–118, Leiden, The Netherlands, 2006.

- [16] A. Alhazov and Y. Rogozhin. Skin output in P systems with minimal symport/antiport and two membranes. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 99–110, Thessaloniki, Greece, 2007.
- [17] Artiom Alhazov. Generating classes of languages by P systems and other devices. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 18–22, Tarragona, February 5-11 2003.
- [18] Artiom Alhazov. Minimizing evolution-communication P systems and EC P automata. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 23–31, Tarragona, February 5-11 2003.
- [19] Artiom Alhazov. A note on P systems with activators. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 16–19, Sevilla, Spain, February 2-7 2004.
- [20] Artiom Alhazov. On the power of deterministic EC P Systems. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 11–15, Sevilla, Spain, February 2-7 2004.
- [21] Artiom Alhazov. Maximally parallel multiset-rewriting systems: Browsing the configurations. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 1–10, 2005.
- [22] Artiom Alhazov. Solving SAT by symport/antiport P systems with membrane division. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 1–6, 2005.
- [23] Artiom Alhazov, Cosmin Bonchis, Gabriel Ciobanu, and Cornel Izbasa. Encodings and arithmetic operations in P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 1–28. Fénix Editora, 2006.

- [24] Artiom Alhazov, Liudmila Burtseva, Svetlana Cojocar, and Yurii Rogozhin. Solving PP-complete and #P-complete problems by P systems with active membranes. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 108–117, 2009.
- [25] Artiom Alhazov and Matteo Cavaliere. Proton pumping P systems. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 1–18. Springer, July 2003.
- [26] Artiom Alhazov and Matteo Cavaliere. Proton pumping P systems. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 1–16, Tarragona, July 17-22 2003.
- [27] Artiom Alhazov and Matteo Cavaliere. Evolution-communication P systems: Time-freeness. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 11–18, 2005.
- [28] Artiom Alhazov and Mario de Jesús Pérez-Jiménez. Uniform solution to QSAT using polarizationless active membranes. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 29–40. Fénix Editora, 2006.
- [29] Artiom Alhazov and Rudolf Freund. On the efficiency of P systems with active membranes and two polarizations. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 81–94, Milano, Italy, June 2004.
- [30] Artiom Alhazov and Rudolf Freund. P systems with one membrane and symport/antiport rules of five symbols are computationally complete. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 19–28, 2005.
- [31] Artiom Alhazov, Rudolf Freund, and Marion Oswald. Tissue P systems with antiport rules and small numbers of symbols and cells. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 7–22, 2005.

- [32] Artiom Alhazov, Rudolf Freund, and Gheorghe Păun. P systems with active membranes and two polarizations. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 20–36, Sevilla, Spain, February 2-7 2004.
- [33] Artiom Alhazov, Rudolf Freund, and Yurii Rogozhin. Some optimal results on symport/antiport P systems with minimal cooperation. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 23–36, 2005.
- [34] Artiom Alhazov and Tseren-Onolt Ishdorj. Membrane operations in P systems with active membranes. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 37–44, Sevilla, Spain, February 2-7 2004.
- [35] Artiom Alhazov, Maurice Margenstern, Vladimir Rogozhin, Yurii Rogozhin, and Sergey Verlan. Communicative P systems with minimal cooperation. In Giancarlo Mauri, Gheorghe Păun, Mario J. Pérez-Jiménez, Grzegorz Rozenberg, and Arto Salomaa, editors, *International Workshop WMC5, Milano, Italy, 2004, LNCS, Springer, 2005 (TO APPEAR)*.
- [36] Artiom Alhazov, Maurice Margenstern, and Sergey Verlan. Fast synchronization in P systems. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 118–128, 2009.
- [37] Artiom Alhazov and Yurii Rogozhin. Minimal cooperation in symport/antiport P systems with one membrane. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 29–34, 2005.
- [38] Artiom Alhazov, Yurii Rogozhin, and Sergey Verlan. Symport/antiport tissue P systems with minimal cooperation. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 37–52, 2005.
- [39] Artiom Alhazov and Dragos Sburlan. Static sorting algorithms for P systems. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 17–40, Tarragona, July 17-22 2003.

- [40] Artiom Alhazov and Dragos Sburlan. (ultimately confluent) parallel multiset-rewriting systems with permitting context. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 95–103, Milano, Italy, June 2004.
- [41] Artiom Alhazov and Sergey Verlan. Sevilla carpets of deterministic non-cooperative P systems. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 53–60, 2005.
- [42] Santiago Alonso, Fernando Arroyo Luis Fernández, and Javier Gil. Main modules design for a HW implementation of massive parallelism in transition P systems. In Masanori Sugisaka and Hiroshi Tanaka, editors, *13th International Symposium on Artificial Life and Robotics*, pages 500–504, 2008.
- [43] B. Aman and G. Ciobanu. Translating mobile ambients into p systems. In N. Busi and C. Zandron, editors, *Proceedings MeCBIC 2006, Venice, 2006*.
- [44] B. Aman and G. Ciobanu. On the reachability problem in P systems with mobile membranes. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 111–123, Thessaloniki, Greece, 2007.
- [45] Bogdan Aman and Gabriel Ciobanu. Membrane systems with surface objects. In Erzsébet Csuhaj-Varjú, Rudolf Freund, Marion Oswald, and Kai Salomaa, editors, *International Workshop on Computing with Biomolecules*, pages 17–28, 2008.
- [46] Bogdan Aman and Gabriel Ciobanu. Resource competition and synchronization in membranes. In Tudor Jebelean, Viorel Negru, Dana Petcu, and Daniela Zaharie, editors, *Proceedings of the 10th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing*, 2008.
- [47] O. Andrei, G. Ciobanu, and D. Lucanu. Operational semantics and rewriting logic in membrane computing. In *Proceedings SOS Workshop (to appear in ENTCS)*, 2005.
- [48] O. Andrei, G. Ciobanu, and D. Lucanu. Expressing control mechanisms in p systems by rewriting strategies. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 119–131, Leiden, The Netherlands, 2006.
- [49] O. Andrei, G. Ciobanu, and D. Lucanu. Strategies in membrane computing. In *BWMC4, Sevilla, 2006*.

- [50] Oana Andrei, Gabriel Ciobanu, and Dorel Lucanu. Rewriting P systems in maude. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 104–118, Milano, Italy, June 2004.
- [51] I. Ardelean. Could p systems model energy-sensing behavior in bacteria? In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 19–26, 2005.
- [52] I. Ardelean. Biological roots and applications of p systems. further suggestions. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 1–7, Leiden, The Netherlands, 2006.
- [53] I. Ioan Ardelean and Daniela Besozzi. Some notes on the interplay between P systems and chemotaxis in bacteria. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 41–48. Fénix Editora, 2006.
- [54] I.I. Ardelean, M. Ignat, and C. Moisescu. Magnetotactic bacteria and their significance for p systems and nanoactuators. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 21–32, Sevilla (Spain), January 29th - February 2 2007.
- [55] Ioan I. Ardelean. The relevance of microbiology for P systems. a discussion of some concepts used in microbiology and P Systems. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [56] Ioan I. Ardelean. Molecular biology of bacteria and its relevance for P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 1–18, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [57] Ioan I. Ardelean and Daniela Besozzi. Mechanosensitive channels, a hot topic in (micro)Biology: any excitement for P systems? In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 32–36, Tarragona, February 5-11 2003.

- [58] Ioan I. Ardelean and Daniela Besozzi. New proposals for the formalization of membrane proteins. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 53–59, Sevilla, Spain, February 2-7 2004.
- [59] Ioan I. Ardelean and Daniela Besozzi. On modelling ion fluxes across biological membranes with P systems. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 35–42, 2005.
- [60] Ioan I. Ardelean, Daniela Besozzi, and Corrado Manara. Aerobic respiration is a bio-logic circuit containing molecular logic gates. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 119–125, Milano, Italy, June 2004.
- [61] Ioan I. Ardelean and Matteo Cavaliere. Playing with a probabilistic P system simulator: Mathematical and biological problems. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 37–45, Tarragona, February 5-11 2003.
- [62] Ioan I. Ardelean, Matteo Cavaliere, and Dragos Sburlan. Computing using signals: From cells to P systems. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 60–73, Sevilla, Spain, February 2-7 2004.
- [63] F. Arroyo, J. Castellanos, L. Fernandez, V.J. Martinez, and L.F. Mingo. Software tools/ p system simulators interoperability. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 147–161, 2005.
- [64] Fernando Arroyo, Angel V. Baranda, Juan Castellanos, Carmen Luenigo, and Luis F. Mingo. A recursive algorithm for describing evolution in transition P systems. In *Pre-Proceedings of Workshop on Membrane Computing, Curtea de Arges, Romania, August 2001*.
- [65] Fernando Arroyo, Angel V. Baranda, Juan Castellanos, Carmen Luenigo, and Luis F. Mingo. Structures and bio-language to simulate transition P systems on digital computers. In Cristian Calude, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Multiset Processing: Mathematical, Computer Science, and Molecular Computing Points of View*, volume 2235 of *Lecture Notes in Computer Science*, pages 1–16. Springer-Verlag, 2001.

- [66] Fernando Arroyo, Juan Castellanos, Carmen Luengo, and Luis F. Mingo. A binary data structure for membrane processors: Connectivity arrays. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 19–30. Springer, July 2003.
- [67] Fernando Arroyo, Carmen Luengo, Angel V. Baranda, and L.F. de Mingo. A software simulation of transition P systems in Haskell. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [68] Fernando Arroyo, Carmen Luengo, Angel V. Baranda, and Luis F. de Mingo. A software simulation of transition P systems in Haskell. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 19–32, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [69] Fernando Arroyo, Carmen Luengo, Juan Castellanos, and L.F. de Mingo. A binary data structure for membrane processors: Connectivity arrays. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 41–52., Tarragona, July 17-22 2003.
- [70] Fernando Arroyo, Carmen Luengo, Juan Castellanos, and L.F. de Mingo. Representing multisets and evolution rules in membrane processors. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 126–137, Milano, Italy, June 2004.
- [71] Joshua J. Arulanandham. Implementing bead-sort with P systems. In Cristian Calude, Michael J. Dinneen, and Ferdinand Peper, editors, *Unconventional Models of Computation: Third International Conference, UMC 2002, Kobe, Japan, October 15-19, 2002. Proceedings*, volume 2509 of *Lecture Notes In Computer Science*, pages 115–125, London, UK, October 15–19 2002. Springer-Verlag Heidelberg.
- [72] Adrian Atanasiu. Authentication of messages using P systems. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [73] Adrian Atanasiu. Authentication of messages using P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio

- Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 33–42, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [74] Adrian Atanasiu and Carlos Martín-Vide. Recursive calculus with membranes. In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [75] J. Auld, L. Bianco, G. Ciobanu, M. Gheorghe, D. Pescini, and F.J. Remero-Campero. The use of p systems for the study of colonies. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 15–20, Leiden, The Netherlands, 2006.
- [76] Tudor Balanescu, Marian Gheorghe, Mike Holcombe, and Florentin Ipate. A variant of EP systems. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [77] Tudor Balanescu, Marian Gheorghe, Mike Holcombe, and Florentin Ipate. Eilenberg P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 43–57, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [78] Delia Balbotin-Noval, Mario Jesús Pérez Jiménez, and Fernando Sancho Caparrini. A MzScheme implementation of transition P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 58–73, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [79] Delia Balbotin-Noval, Mario Jesús Pérez-Jiménez, and Fernando Sancho-Caparrini. A MzScheme implementation of transition P systems. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [80] Angel V. Baranda, Juan Castellanos, Fernando Arroyo, and Rafael Gonzalo. Towards an electronic implementation of membrane computing: A formal description of nondeterministic evolution in transition P systems. In Natasha Jonoska and N.C. Seeman, editors, *Proc. 7th Intern. Meeting on DNA Based Computers*, pages 273–282, Tampa, Florida, USA, 2001.

- [81] Angel V. Baranda, Juan Castellanos, Fernando Arroyo, and Carmen Luengo. Bio-language for computing with membranes. In Jozef Kelemen and Petr Sosik, editors, *Advances in Artificial Life : 6th European Conference, ECAL 2001, Prague, Czech Republic, September 10-14, 2001, Proceedings.*, volume 2159 of *LNAI*, pages 176–185, Praga, September 2001. Springer-Verlag.
- [82] N. Barbacari, A. Profir, and C. Zelinschi. Gene regulatory network modelling by means of membrane systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 162–178, 2005.
- [83] R. Barbuti, A. Maggiolo-Schettini, P. Milazzo, and A. Troina. The calculus of looping sequences for modeling biological membranes. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 57–80, Thessaloniki, Greece, 2007.
- [84] Roberto Barbuti, Giulio Caravagna, Andrea Maggiolo-Schettini, Paolo Milazzo, and Giovanni Pardini. The calculus of looping sequences. In Marco Bernardo, Pierpaolo Degano, and Gianluigi Zavattaro, editors, *Formal Methods for Computational Systems Biology*, volume 5016 of *Lecture Notes in Computer Science*, pages 387–423, 2008.
- [85] Roberto Barbuti, Andrea Maggiolo-Schettini, Paolo Milazzo, and Luca Tesei. Timed P automata. In Gabriel Ciobanu, editor, *Second International Meeting on Membrane Computing and Biologically Inspired Process Calculi*, pages 53–67, 2008.
- [86] J. Bartosik. Heaps of pieces and paun’s systems. In *Proceedings of the Second Conference on Tools and Methods of Data Transformation*. WSU Kielce, 2004.
- [87] J. Bartosik. Paun’s systems in modeling of human resource management. In *Proceedings of the Second Conference on Tools and Methods of Data Transformation*. WSU Kielce, 2004.
- [88] J. Bartosik. Membrany dynamicsne w modelowaniu systemow ekonomicznych. In *Conf. Bad. Oper. i Syst.*, 2006.
- [89] J. Bartosik and Waldemar Korczynski. Systemy membranowe jako modele hierarchicznych struktur zarzadzania. In *Mat. Pokonferencyjne Ekonomia, Informatyka, Zarzadzanie. Teoria i Praktyka*. Wydzial Zarzadzania AGH, Tom II, AGH, 2002.
- [90] Gemma Bel-Enguix. P systems, a preliminary application to linguistics. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.

- [91] Gemma Bel-Enguix. Preliminaries about some possible applications of P systems in linguistics. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 74–89, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [92] Gemma Bel-Enguix. Analyzing P systems structure: Working, predictions, and some linguistic suggestions. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 138–150, Milano, Italy, June 2004.
- [93] Gemma Bel-Enguix, Matteo Cavaliere, Rodica Ceterchi, Radu Gramatovici, and Carlos Martín-Vide. An application of dynamic P systems: Generating context-free languages. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 90–106, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [94] Gemma Bel-Enguix, Matteo Cavaliere, Rodica Ceterchi, and Carlos Martín-Vide. Generating context-free languages with dynamic P systems. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [95] Gemma Bel-Enguix and Radu Gramatovici. Active P automata and natural language processing. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 61–71, Tarragona, July 17-22 2003.
- [96] Gemma Bel-Enguix and Radu Gramatovici. Parsing with active P automata. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 31–42. Springer, July 2003.
- [97] Gemma Bel-Enguix and María-Dolores Jiménez-López. Explaining language change with membranes. In *Pre-Proceedings of Workshop on Grammar Systems, Computer and Automation Research Institute (SZTAKI) of the Hungarian Academy of Sciences (MTA)*, pages 31–46, Budapest, July 5-9 2004.
- [98] L. Bernardinello, N. Bonzanni, M. Mascheroni, and L. Pomello. Modeling symport/antiport P systems with a class of hierarchical

- petri nets. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 123–138, Thessaloniki, Greece, 2007.
- [99] F. Bernardini and R. Freund. Tissue p systems with communication modes. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 132–144, Leiden, The Netherlands, 2006.
- [100] F. Bernardini, M. Gheorghe, N. Krasnogor, R.C. Muniyandi, M.J Perez Jimenez, and F.J. Romero Campero. On p systems as a modelling tool for biological systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 193–213, 2005.
- [101] F. Bernardini, M. Gheorghe, N. Krasnogor, and G. Terrazas. Membrane computing. current results and future problems, new computational paradigms. In B. Lowe S. Barry Cooper and L. Torenvliet, editors, *First Conf. on Computability in Europe, CiE2005, Amsterdam, LNCS 3536*, pages 49–53. Springer, 2005.
- [102] F. Bernardini, M. Gheorghe, M. Margenstern, and S. Verlan. Networks of cells and petri nets. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 33–62, Sevilla (Spain), January 29th - February 2 2007.
- [103] F. Bernardini, M. Gheorghe, F.J. Romero-Campero, and N. Walkinshaw. A hybrid approach to modelling biological systems. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 139–164, Thessaloniki, Greece, 2007.
- [104] F. Bernardini, F. J. Romero-Campero, M. Gheorghe, M. J. Perez-Jimenez, M. Margenstern, S. Verlan, and N. Krasnogor. On p systems with bounded parallelism. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 31–36, 2005.
- [105] Francesco Bernardini and Marian Gheorghe. Language generating by means of P systems with active membranes. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 46–60, Tarragona, February 5-11 2003.
- [106] Francesco Bernardini and Marian Gheorghe. Molecular/Cellular X Machines. In *EMCC Workshop, Vienna, November 2003*.

- [107] Francesco Bernardini and Marian Gheorghe. On the power of minimal symport/antiport. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 72–83, Tarragona, July 17-22 2003.
- [108] Francesco Bernardini and Marian Gheorghe. Cell communication in tissue P systems and cell division in population P Systems. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 74–91, Sevilla, Spain, February 2-7 2004.
- [109] Francesco Bernardini and Marian Gheorghe. Computing at population level in P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 151–153, Milano, Italy, June 2004.
- [110] Francesco Bernardini, Marian Gheorghe, Natalio Krasnogor, and Jean-Louis Giavitto. On self-assembly in population P systems. In *Unconventional Computation 4th International Conference, UC 2005, Sevilla, Spain, October 3-7, 2005. Proceedings*, volume 3699 of *Lecture Notes in Computer Science*. Springer Berlin / Heidelberg, 2005.
- [111] Francesco Bernardini, Marian Gheorghe, Maurice Margenstern, and Sergey Verlan. How to synchronize the activity of all components of a P system? In György Vaszil, editor, *Proceedings of the International Workshop on Automata for Cellular and Molecular Computing*, pages 11–22, 2007.
- [112] Francesco Bernardini, Marion Gheorghe, N. Krasnogor, and Gheorghe Păun. Turing machines with cells on the tape. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 61–74, 2005.
- [113] Francesco Bernardini and Vincenzo Manca. P systems with boundary rules. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [114] Francesco Bernardini and Vincenzo Manca. P systems with boundary rules. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 107–118, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.

- [115] Francesco Bernardini and Andrei Paun. Universality of minimal symport/antiport: Five membranes suffice. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 43–54. Springer, July 2003.
- [116] D. Besozzi, P. Cazzaniga, D. Pescini, and G. Mauri. Seasonal variance in p system models for metapopulations. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 27–36, Wuhan, China, September 2006.
- [117] D. Besozzi, P. Cazzaniga, D. Pescini, and G. Mauri. Seasonal variance in p systems models for metapopulations. In *Proc. Bio-Inspired Computing – Theory and Applications Conf., BIC-TA 2006, Wuhan, China, September 2006, Membrane Computing Section.*, 2006.
- [118] D. Besozzi and G. Rozenberg. Extended p systems for the analysis of (trans)membrane proteins. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 8–9, Leiden, The Netherlands, 2006.
- [119] Daniela Besozzi, Ioan I. Ardelean, and Giancarlo Mauri. The potential of P systems for modelling the activity of mechanosensitive channels. In *EMCC Workshop*, Vienna, November 2003.
- [120] Daniela Besozzi, Ioan I. Ardelean, and Giancarlo Mauri. The potential of P systems for modelling the activity of mechanosensitive channels. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 84–102, Tarragona, July 17-22 2003.
- [121] Daniela Besozzi, Nadia Busi, Giuditta Franco, Rudolf Freund, and Gheorghe Paun. Two universality results for (mem)brane systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 49–62. Fénix Editora, 2006.
- [122] Daniela Besozzi and Gabriel Ciobanu. A P systems description of the sodium-potassium pump. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 154–160, Milano, Italy, June 2004.

- [123] Daniela Besozzi, Erzsébet Csuhaj-Varjú, Giancarlo Mauri, and Claudio Zandron. Size and power of extended gemmating p systems. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 92–101, Sevilla, Spain, February 2-7 2004.
- [124] Daniela Besozzi, Claudio Ferretti, Giancarlo Mauri, and Claudio Zandron. Parallel rewriting P systems with deadlock. In Masami Hagiya and Azuma Ohuchi, editors, *DNA Computing: 8th International Workshop on DNA-Based Computers, DNA8 Sapporo, Japan, June 10-13, 2002. Revised Papers*, volume 2568 of *Lecture Notes In Computer Science*, pages 302–314. Springer-Verlag Heidelberg, 2003.
- [125] Daniela Besozzi, Giancarlo Mauri, Dario Pescini, and Claudio Zandron. Membrane systems in systems biology. In *9th International Workshop on Discrete Event Systems*, pages 275–280, 2008.
- [126] Daniela Besozzi, Giancarlo Mauri, György Vaszil, and Claudio Zandron. Collapsing hierarchies of parallel rewriting P systems without target conflicts. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 55–69. Springer, July 2003.
- [127] Daniela Besozzi, Giancarlo Mauri, György Vaszil, and Claudio Zandron. Collapsing hierarchies of parallel rewriting P systems without target conflicts. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 103–116, Tarragona, July 17-22 2003.
- [128] Daniela Besozzi, Giancarlo Mauri, and Claudio Zandron. Parallel rewriting P systems without target conflicts. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [129] Daniela Besozzi, Giancarlo Mauri, and Claudio Zandron. Hierarchies of parallel rewriting P systems. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 61–74, Tarragona, February 5-11 2003.
- [130] Daniela Besozzi, Giancarlo Mauri, and Claudio Zandron. Parallel rewriting P systems without target conflicts. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors,

*Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 119–133, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.

- [131] Daniela Besozzi, Claudio Zandron, Giancarlo Mauri, and N. Sabadini. P systems with gemmation of mobile membranes. In Antonio Restivo, Simona Ronchi-Della-Rocca, and Luca Roversi, editors, *Theoretical Computer Science. 7th Italian Conference, ICTCS 2001, Torino, Italy, October 4-6, 2001. Proceedings.*, volume 2202 of *Lecture Notes in Computer Science*, pages 136–153, Turin, October 2001. Springer-Verlag.
- [132] Markus Beyreder and Rudolf Freund. Membrane systems using noncooperative rules with unconditional halting. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 129–136, 2009.
- [133] L. Bianco. Psim: A computational platform for metabolic P systems. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 1–20, Thessaloniki, Greece, 2007.
- [134] L. Bianco and F. Fontana. Towards an hybrid metabolic algorithm. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 145–158, Leiden, The Netherlands, 2006.
- [135] L. Bianco, F. Fontana, and V. Manca. P systems and the modeling of biochemical oscillations. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 214–225, 2005.
- [136] L. Bianco, F. Fontana, and V. Manca. Reaction-driven membrane systems. In *ICNC'05, Changsha, China*, August 2005.
- [137] L. Bianco and V. Manca. Encoding-decoding classes of p systems for the metabolic algorithm. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 226–234, 2005.
- [138] L. Bianco, V. Manca, and S. Zorzan. Symbolic representations of biological oscillations. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 37–44, 2005.
- [139] L. Bianco and Vincenzo Manca. Metabolic algorithms and signal transduction dynamical networks. In *First brainstorming Workshop on*

*Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004, 2004.*

- [140] L. Bianco, D. Pescini, P. Siepmann, N. Krasnogor, F.J. Romero-Campero, and M. Gheorghe. Towards a p systems pseudomonas quorum sensing model. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 159–176, Leiden, The Netherlands, 2006.
- [141] Luca Bianco, Federico Fontana, and Vincenzo Manca. Metabolic algorithm with time-varying reaction maps. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 43–62, 2005.
- [142] A. Binder, R. Freund, G. Lojka, and M. Oswald. Applications of membrane systems in distributed systems. In *Proc. Bio-Inspired Computing – Theory and Applications Conf., BIC-TA 2006, Wuhan, China, September 2006, Membrane Computing Section.*, 2006.
- [143] A. Binder, R. Freund, G. Lojka, and M. Oswald. Applications of membrane systems in distributed systems. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 37–50, Wuhan, China, September 2006.
- [144] A. Binder, R. Freund, M. Oswald, and L. Vock. Extended spiking neural p systems with excitatory and inhibitory astrocytes. In M.A. Gutiérrez-Naranjo, Gh. Păaun, A. Romero-Jimenez, and A. Riscos-Nunez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 63–72, Sevilla (Spain), January 29th - February 2 2007.
- [145] Aneta Binder, Rudolf Freund, Georg Lojka, and Marion Oswald. Implementation of catalytic P systems. In *Ninth International Conference on Implementation and Application of Automata Queen’s University, Kingston, Ontario, Canada, July 22-24, 2004*, pages 24–33, Ontario, Canada, July 22-24 2004.
- [146] Aneta Binder, Rudolf Freund, and Marion Oswald. Extended spiking neural P systems with astrocytes – Variants for modelling the brain. In Masanori Sugisaka and Hiroshi Tanaka, editors, *13th International Symposium on Artificial Life and Robotics*, pages 520–524, 2008.
- [147] C. Bonchis, C. Isbasa, and G. Ciobanu. Compositional asynchronous membrane systems. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 51–59, Wuhan, China, September 2006.

- [148] C. Bonchis, C. Isbasa, and G. Ciobanu. Compositional asynchronous membrane systems. In *Proc. Bio-Inspired Computing – Theory and Applications Conf., BIC-TA 2006, Wuhan, China, September 2006, Membrane Computing Section.*, 2006.
- [149] C. Bonchis, C. Izbasu, and G. Ciobanu. Information theory over multisets. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Riscos-Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 73–86, Sevilla (Spain), January 29th - February 2 2007.
- [150] C. Bonchis, C. Izbasu, and G. Ciobanu. Information theory over multisets. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 165–172, Thessaloniki, Greece, 2007.
- [151] Cosmin Bonchis, Gabriel Ciobanu, Cornel Izbasu, and Dana Petcu. A web-based P systems simulator and its parallelization. In *Unconventional Computation 4th International Conference, UC 2005, Sevilla, Spain, October 3-7, 2005. Proceedings*, volume 3699 of *Lecture Notes in Computer Science*. Springer Berlin / Heidelberg, 2005.
- [152] Cosmin Bonchis, Cornel Isbasa, Dana Petcu, and Gabriel Ciobanu. WebPS: A web-based P system simulator with query facilities. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 63–72, 2005.
- [153] R. Borrego-Ropero, D. Diaz-Pernil, and J.A. Nepomuceno. Visualtissue: A friendly tool to study tissue p systems solutions for graph problems. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 87–96, Sevilla (Spain), January 29th - February 2 2007.
- [154] Rafael Borrego-Ropero, Daniel Díaz-Pernil, and Mario J. Pérez-Jiménez. Tissue simulator: A graphical tool for tissue P systems. In György Vaszil, editor, *Proceedings of the International Workshop on Automata for Cellular and Molecular Computing*, pages 23–34, 2007.
- [155] Paolo Bottoni, Anna Labella, Carlos Martín-Vide, and Gheorghe Păun. Rewriting P systems with conditional communication. In W. Brauer, H. Ehrig, J. Karhumäki, and Arto Salomaa, editors, *Formal and Natural Computing: Essays Dedicated to Grzegorz Rozenberg*, volume 2300 of *Lecture Notes in Computer Science*, pages 325–353, Berlin, 2002. Springer-Verlag.

- [156] Ginés Bravo, Luis Fernández, and M. A. Pena. Hierarchical master-slave architecture for membrane systems implementation. In Masanori Sugisaka and Hiroshi Tanaka, editors, *13th International Symposium on Artificial Life and Robotics*, pages 485–490, 2008.
- [157] R. Brijder, M. Cavaliere, A. Riscos-Nunez, G. Rozenberg, and D. Sburlan. Membrane systems with external control. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 177–195, Leiden, The Netherlands, 2006.
- [158] N. Busi. On the computational power of the mate/bud/drip brane calculus: Interleaving vs. maximal parallelism. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 235–252, 2005.
- [159] N. Busi. Causality in membrane systems. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 173–184, Thessaloniki, Greece, 2007.
- [160] N. Busi. Towards a causal semantics for brane calculi. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 97–112, Sevilla (Spain), January 29th - February 2 2007.
- [161] N. Busi and M.A. Gutiérrez-Naranjo. A case study in (mem)brane computation: Generating  $\{n^2 \mid n \geq 1\}$ . In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 196–212, Leiden, The Netherlands, 2006.
- [162] N. Busi and C. Zandron. Computing with genetic gates, proteins and membranes. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 213–228, Leiden, The Netherlands, 2006.
- [163] N. Busi and C. Zandron. Modeling and analysis of biological processes by mem(brane) calculi and systems. In *Proc. of the 2006 Winter Simulation Conference, Monterey, CA, Usa*, 2006.
- [164] Nadia Busi. Decidability of divergence for catalytic P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 63–80. Fénix Editora, 2006.

- [165] Nadia Busi and Miguel-Angel Gutiérrez-Naranjo. A case study in (mem)brane computation: Generating  $\{n^2 \mid n \geq 1\}$ . In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 81–98. Fénix Editora, 2006.
- [166] M. Camara and Quorum Sensing. A cell-cell signaling mechanism used to coordinate behavioural changes in bacterial populations. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 10–14, Leiden, The Netherlands, 2006.
- [167] L. Cardelli. Abstract machines of systems biology (extended abstract). In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 73–86, 2005.
- [168] L. Cardelli and Gheorghe Păun. An universality result for a (mem)brane calculus based on mate/drip operations. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 75–94, 2005.
- [169] M. Cardona, M.A. Colomer, M.J. Perez-Jimenez, and A. Zaragoza. Classifying states of a finite markov chain with membrane computing. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 229–241, Leiden, The Netherlands, 2006.
- [170] M. Cardona, M.A. Colomer, M.J. Perez-Jimenez, and A. Zaragoza. Hierarchical clustering with membrane computing. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 185–204, Thessaloniki, Greece, 2007.
- [171] Mónica Cardona, M. Angels Colomer, Mario-Jesús Pérez-Jiménez, and Alba Zaragoza. Handling markov chains with membrane computing. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 99–112. Fénix Editora, 2006.
- [172] J. Casasnovas, M. Moya, J. Miro, and F. Rossello. A fuzzy approach to membrane computing with approximate copies. In *First brainstorming Workshop on Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004*, 2004.

- [173] J. Casasnovas and F. Rossello. Counting the contents of fuzzy membranes... and related problem. In *First brainstorming Workshop on Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004*, 2004.
- [174] Giovanni Casiraghi, Claudio Ferretti, A. Gallini, and Giancarlo Mauri. A membrane computing system mapped on an asynchronous distributed computational environment. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 253–260, 2005.
- [175] Juan Castellanos, Gheorghe Păun, and Alfonso Rodríguez-Patón. P systems with worm-objects. In *Proceedings of the Seventh International Symposium on String Processing Information Retrieval (SPIRE'00)*, pages 64–74, A Coruña, Spain, September 2000. IEEE Computer Society.
- [176] Alberto Castellini and Vincenzo Manca. MetaPlab: A computational framework for metabolic P systems. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 157–168, 2009.
- [177] M. Cavaliere and R. Mardare. Playing with partial knowledge in membrane systems: A logical approach. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 242–260, Leiden, The Netherlands, 2006.
- [178] M. Cavaliere, A. Riscos-Nunez, R. Brijder, and G. Rozenberg. Membrane systems with marked membranes. In N. Busi and C. Zandron, editors, *Proceedings MeCBIC 2006*, Venice, 2006.
- [179] M. Cavaliere and S. Sedwards. Modelling cellular processes using membrane systems with peripheral and integral proteins. In *Fourth International Conference on Computational Methods in Systems Biology, CMSB2006*, Lecture Notes In Bioinformatics. Springer-Verlag.
- [180] M. Cavaliere and S. Sedwards. Membrane systems with peripheral proteins: transport and evolution. In N. Busi and C. Zandron, editors, *Proceedings MeCBIC 2006*, Venice, 2006.
- [181] Matteo Cavaliere. Evolution-communication P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 134–145, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.

- [182] Matteo Cavaliere. Modelling biological processes in P systems: Handling imprecision and constructing new models. In *First brainstorming Workshop on Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004*, 2004.
- [183] Matteo Cavaliere. Towards asynchronous P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 161–173, Milano, Italy, June 2004.
- [184] Matteo Cavaliere and Vincenzo Deufemia. Further results on time-free P systems. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 95–116, 2005.
- [185] Matteo Cavaliere and Vincenzo Deufemia. Specifying dynamic software architectures by using membrane systems. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 87–106, 2005.
- [186] Matteo Cavaliere, Rudolf Freund, A. Leitsch, and Gheorghe Păun. Event-related outputs of computations in P systems. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 107–122, 2005.
- [187] Matteo Cavaliere, Rudolf Freund, Marion Oswald, and Dragos Sburlan. Multiset random context grammars, checkers, and transducers. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 113–132. Fénix Editora, 2006.
- [188] Matteo Cavaliere and Daniela Genova. P systems with symport/antiport of rules. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 102–116, Sevilla, Spain, February 2-7 2004.
- [189] Matteo Cavaliere, Mihai Ionescu, and Tseren-Onolt Ishdorj. Inhibiting/de-inhibiting rules in P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 174–183, Milano, Italy, June 2004.
- [190] Matteo Cavaliere, Mihai Ionescu, and Tseren-Onolt Ishdorj. Inhibiting/de-inhibiting P systems with active membranes. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 117–130, 2005.

- [191] Matteo Cavaliere and Natasha Jonoska. Forbidding and enforcing in membrane computing. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 75–84, Tarragona, February 5-11 2003.
- [192] Matteo Cavaliere and Peter Leupold. Evolution and observation - a new way to look at membrane systems. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 117–132, Tarragona, July 17-22 2003.
- [193] Matteo Cavaliere and Peter Leupold. Evolution and observation: A new way to look at membrane systems. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 70–87. Springer, July 2003.
- [194] Matteo Cavaliere and Dragos Sburlan. Time-independent P systems. In Giancarlo Mauri, Gheorghe Păun, Mario J. Pérez-Jiménez, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing. International Workshop WMC5, Milano, Italy, 2004 (TO APPEAR)*.
- [195] Matteo Cavaliere and Claudio Zandron. Time-driven computations in P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 133–144. Fénix Editora, 2006.
- [196] P. Cazzaniga, A. Leporati, G. Mauri, and C. Zandron. P systems with memory. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 261–281, 2005.
- [197] P. Cazzaniga, D. Pescini, D. Besozzi, and G. Mauri. Tau leaping stochastic simulation method in p systems. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 261–273, Leiden, The Netherlands, 2006.
- [198] Paolo Cazzaniga, Dario Pescini, Francisco-José Romero-Campero, Daniela Besozzi, and Giancarlo Mauri. Stochastic approaches in P systems for simulating biological systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 145–164. Fénix Editora, 2006.

- [199] R. Ceterchi, M.J. Perez-Jimenez, and A.I. Tomescu. Simulating the bitonic sort on a 2D-mesh with P systems. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 205–226, Thessaloniki, Greece, 2007.
- [200] Rodica Ceterchi. Rewriting in P systems: An algebreic approach. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 165–168. Fénix Editora, 2006.
- [201] Rodica Ceterchi, Radu Gramatovici, and Natasa Jonoska. Tiling rectangular pictures with P systems. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 88–103. Springer, July 2003.
- [202] Rodica Ceterchi, Radu Gramatovici, and Natasha Jonoska. P systems for tiling rectangular pictures. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 133–144, Tarragona, July 17-22 2003.
- [203] Rodica Ceterchi, Radu Gramatovici, Natasha Jonoska, and K.G. Subramanian. Generating picture languages with P systems. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 85–100, Tarragona, February 5-11 2003.
- [204] Rodica Ceterchi, Mutyam Madhu, Gheorghe Păun, and K.G. Subramanian. Array-rewriting P systems. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 118–134, Tarragona, February 5-11 2003.
- [205] Rodica Ceterchi and Carlos Martín-Vide. Generating P systems with contextual grammar. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [206] Rodica Ceterchi and Carlos Martín-Vide. Dynamic P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 146–186, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.

- [207] Rodica Ceterchi and Carlos Martín-Vide. P systems with communication for static sorting. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 101–117, Tarragona, February 5-11 2003.
- [208] Rodica Ceterchi, Mario J. Pérez-Jiménez, and Alexandru Ioan Tomescu. Sorting omega networks simulated with P systems: Optimal data layouts. In Erzsébet Csuhaj-Varjú, Rudolf Freund, Marion Oswald, and Kai Salomaa, editors, *International Workshop on Computing with Biomolecules*, pages 29–42, 2008.
- [209] Rodica Ceterchi and Mario Jesús Pérez-Jiménez. A perfect shuffle algorithm for reduction processes and its simulation with P systems. In *International Conference on Computers and Communications-ICCC 2004, Baile Felix Spa, Oradea, ROMANIA, Oradea, ROMANIA, May 27-29 2004*.
- [210] Rodica Ceterchi and Mario Jesús Pérez-Jiménez. Simulating parallel architectures with P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 184–185, Milano, Italy, June 2004.
- [211] Rodica Ceterchi and Mario Jesús Pérez-Jiménez. Simulating shuffle-exchange networks with P systems. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 117–129, Sevilla, Spain, February 2-7 2004.
- [212] Rodica Ceterchi and Mario Jesús Pérez-Jiménez. Simulating a class of parallel architectures: A broader perspective. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 131–148, 2005.
- [213] Rodica Ceterchi and Dragos Sburlan. Simulating boolean circuits with P systems. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 104–122. Springer, July 2003.
- [214] Rodica Ceterchi and Dragos Sburlan. Simulating boolean circuits with P systems. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 145–160, Tarragona, July 17-22 2003.

- [215] P.H. Chandra and K.G. Subramanian. On picture arrays generated by p systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 282–288, 2005.
- [216] H. Chen, T.-O. Ishdorj, and Gh. Paun. Computing along the axon. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 60–70, Wuhan, China, September 2006.
- [217] Haiming Chen, Rudolf Freund, Mihai Ionescu, Gheorghe Paun, and Mario-Jesús Pérez-Jiménez. On string languages generated by spiking neural P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 169–194. Fénix Editora, 2006.
- [218] Haiming Chen, Mihai Ionescu, and Tseren-Onolt Ishdorj. On the efficiency of spiking neural P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 195–206. Fénix Editora, 2006.
- [219] Haiming Chen, Mihai Ionescu, Andrei Paun, Gheorghe Paun, and Bianca Popa. On trace languages generated by spiking neural P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 207–224. Fénix Editora, 2006.
- [220] Haiming Chen, Tseren-Onolt Ishdorj, and Gheorghe Paun. Computing along the axon. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 225–240. Fénix Editora, 2006.
- [221] Haiming Chen, Tseren-Onolt Ishdorj, Gheorghe Paun, and Mario-Jesús Pérez-Jiménez. Spiking neural P systems with extended rules. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 241–266. Fénix Editora, 2006.
- [222] S. Cheruku, A. Paun, F.J. Romero-Campero, M.J. Perez-Jimenez, and O.H. Ibarra. Simulating fas-induced apoptosis by using p systems.

- In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 71–81, Wuhan, China, September 2006.
- [223] S. Cheruku, A. Paun, F.J. Romero-Campero, M.J. Perez-Jimenez, and O.H. Ibarra. Simulating fas-induced apoptosis by using p systems. In *Proc. Bio-Inspired Computing – Theory and Applications Conf., BIC-TA 2006, Wuhan, China, September 2006, Membrane Computing Section.*, 2006.
- [224] L. Cienciala, L. Ciencialova, and A. Kelemenova. On the number of agents in P colonies. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 227–242, Thessaloniki, Greece, 2007.
- [225] Ludek Cienciala. P automata with priorities working in sequential and maximally parallel mode. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 186–195, Milano, Italy, June 2004.
- [226] Ludek Cienciala and Lucie Ciencialova. P automata with priorities. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 161–168, Tarragona, July 17-22 2003.
- [227] L. Ciencialova and L. Cienciala. Variations on the theme: P colonies. In D. Kol and A. Meduna, editors, *Proc. First Intern. Workshop WEM06*, pages 27–34, Ostrava, 2007.
- [228] G. Ciobanu. A programming perspective of the membrane computing. In *Proc. of ICCCC 2006, Oradea, Romania, June 2006*, pages 13–22.
- [229] G. Ciobanu, O. Andrei, and D. Lucanu. Structural operational semantics of p systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 1–23, 2005.
- [230] G. Ciobanu and L. Cornăcel. Probabilistic transitions for p systems. In *Proc. Bio-Inspired Computing – Theory and Applications Conf., BIC-TA 2006 Wuhan, China, September 2006, Membrane Computing Section.*, 2006.
- [231] G. Ciobanu and L. Cornăcel. Probabilistic transitions for p systems. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 82–92, Wuhan, China, September 2006.

- [232] G. Ciobanu and M. Gontineac. P machines: An automata approach to membrane computing. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 274–289, Leiden, The Netherlands, 2006.
- [233] G. Ciobanu and M. Gontineac. Networks of mealy multiset automata. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 243–254, Thessaloniki, Greece, 2007.
- [234] G. Ciobanu and V.M. Gontineac. Algebraic and coalgebraic aspects of membrane computing. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 289–311, 2005.
- [235] G. Ciobanu and D. Lucanu. What is an event for membrane systems? In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 255–266, Thessaloniki, Greece, 2007.
- [236] Gabriel Ciobanu. Cellular meta-programming. In *Pre-Proc. Unconventional Programming Paradigms, UPP04, Le Mont Saint-Michel*, pages 55–63, September 2004.
- [237] Gabriel Ciobanu. Pumps systems of membranes. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 130–133, Sevilla, Spain, February 2-7 2004.
- [238] Gabriel Ciobanu, Rahul Desai, and Akash Kumar. Membrane systems and distributed computing. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [239] Gabriel Ciobanu, Rahul Desai, and Akash Kumar. Membrane systems and distributed computing. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 187–202, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [240] Gabriel Ciobanu, Daniel Dumitriu, Dorin Huzum, Gabriel Moruz, and Bogdan Tanasa. Client-server P systems in modeling molecular interaction. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*,

pages 203–218, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.

- [241] Gabriel Ciobanu and M. Gontineac. Mealy membrane automata and P systems complexity. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 149–164, 2005.
- [242] Gabriel Ciobanu and Mihai Gontineac. Multisets and their encodings. In Oscar H. Ibarra and Petr Sosík, editors, *Proceedings of Prague International Workshop on Membrane Computing*, pages 1–10, 2008.
- [243] Gabriel Ciobanu and Dorin Paraschiv. Membrane software. A P system simulator. In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [244] Gabriel Ciobanu, Gheorghe Păun, and Mario Jesús Pérez-Jiménez. On the branching complexity of P systems. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 165–176, 2005.
- [245] Gabriel Ciobanu, Gheorghe Păun, and Gh. Stefanescu. Sevilla carpets associated with P systems. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 135–140, Tarragona, February 5-11 2003.
- [246] Gabriel Ciobanu and Dana Petcu. P accelerators: Parallelization of sequential simulators. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 177–186, 2005.
- [247] Gabriel Ciobanu and Bogdan Tanasa. Gene expression by software mechanisms. In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [248] Gabriel Ciobanu, Bogdan Tanasa, Daniel Dumitriu, Dorin Huzum, and Gabriel Moruz. Molecular networks as communicating membranes. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [249] Gabriel Ciobanu and G. Wenyuan. A parallel implementation of transition P systems. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Pre-proceedings of the Workshop on Membrane Computing*, pages 169–184, Tarragona, July 17-22 2003.

- [250] Gabriel Ciobanu and Guo Wenyuan. P systems running on a cluster of computers. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 123–139. Springer, July 2003.
- [251] Mónica Cardona M. Angels Colomer, Mario J. Pérez-Jiménez, Delfi Sanuy, and Antoni Margalida. Modeling ecosystems using P systems: The bearded vulture, a case study. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 137–156, 2009.
- [252] Andrés Cerdón-Franco, Miguel A. Gutiérrez-Naranjo, and Mario J. Pérez-Jiménez. Looking for P truth. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 134–138, Sevilla, Spain, February 2-7 2004.
- [253] Andrés Cerdón-Franco, Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, and Agustín Riscos-Núñez. Exploring computation trees associated with P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 196–204, Milano, Italy, June 2004.
- [254] Andrés Cerdón-Franco, Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, and Agustín Riscos-Núñez. Weak metrics on configurations of a P system. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 139–151, Sevilla, Spain, February 2-7 2004.
- [255] Andrés Cerdón-Franco, Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, Agustín Riscos-Núñez, and Fernando Sancho-Caparrini. Implementing in Prolog an effective cellular solution for the Knapsack problem. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 185–196, Tarragona, July 17-22 2003.
- [256] Andrés Cerdón-Franco, Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, Agustín Riscos-Núñez, and Fernando Sancho-Caparrini. Implementing in Prolog an effective cellular solution to the Knapsack problem. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun,

- Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 140–152. Springer, July 2003.
- [257] Andrés Cordón-Franco, Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, and Fernando Sancho-Caparrini. A Prolog simulator for deterministic P systems with active membranes. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 141–154, Tarragona, February 5-11 2003.
- [258] Andrés Cordón-Franco and Fernando Sancho-Caparrini. Non-discrete P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 205–207, Milano, Italy, June 2004.
- [259] C. Csuhaj-Varjú, Antonio Di Nola, Gheorghe Păun, Mario Jesús Pérez-Jiménez, and György Vaszil. Editing configurations of P systems. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 131–154, 2005.
- [260] E. Csuhaj-Varju, R. Freund, and D. Sburlan. Modeling the dynamical parallelism of bio-systems. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 290–310, Leiden, The Netherlands, 2006.
- [261] E. Csuhaj-Varju, R. Freund, and D. Sburlan. Modeling the dynamical parallelism of bio-systems. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 290–310, Leiden, The Netherlands, 2006.
- [262] E. Csuhaj-Varju, M. Margenstern, and G. Vaszil. P colonies with a bounded number of cells and programs. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 311–322, Leiden, The Netherlands, 2006.
- [263] E. Csuhaj-Varju and G. Vaszil. P systems with string objects and with communication by request. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 267–278, Thessaloniki, Greece, 2007.
- [264] Erzsébet Csuhaj-Varjú. On gemmating P systems. In *EMCC Workshop*, Vienna, November 2003.

- [265] Erzsébet Csuhaj-Varjú. P automata: Models, results, and research topics. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 1–11, Milano, Italy, June 2004.
- [266] Erzsébet Csuhaj-Varjú. EP-colonies: Micro-organisms in a cell-like environment. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 123–130, 2005.
- [267] Erzsébet Csuhaj-Varjú, Maurice Margenstern, György Vaszil, and Sergei Verlan. Small computationally complete symport/antiport P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume I*, pages 267–282. Fénix Editora, 2006.
- [268] Erzsébet Csuhaj-Varjú, Carlos Martín-Vide, Gheorghe Păun, and Arto Salomaa. From Watson-Crick L Systems to Darwinian P systems. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 155–170, Tarragona, February 5-11 2003.
- [269] Erzsébet Csuhaj-Varjú and György Vaszil. P Automata. In *Pre-Proceedings of Second Workshop on Membrane Computing, Curtea de Arges, Romania, August 2002*.
- [270] Erzsébet Csuhaj-Varjú and György Vaszil. The computational complexity of P automata, accepting P systems with communication only. In *EMCC Workshop, Vienna, November 2003*.
- [271] Erzsébet Csuhaj-Varjú and György Vaszil. New results and research directions concerning P Automata, accepting P systems with communication only. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 171–179, Tarragona, February 5-11 2003.
- [272] Erzsébet Csuhaj-Varjú and György Vaszil. P Automata or purely communicating accepting P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 219–233, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [273] Erzsébet Csuhaj-Varjú and György Vaszil. Reducing the size of extended gemmating P systems. In *Pre-proceedings of the Fifth Workshop*

- on *Membrane Computing (WMC5)*, Milano, Italy, June 2004, pages 208–220, Milano, Italy, June 2004.
- [274] Eugen Czeizler. Self-activating P systems. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [275] Eugen Czeizler. Self-activating P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 234–246, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [276] Silvano Dal-Zilio and Enrico Formenti. On the dynamics of PB systems. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 197–208, Tarragona, July 17-22 2003.
- [277] Silvano Dal-Zilio and Enrico Formenti. On the dynamics of PB Systems: A Petri net view. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 153–167. Springer, July 2003.
- [278] Z. Dang, O.H. Ibarra, S. Woodworth, and H.C. Yen. On symport/antiport systems and semilinear sets. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 312–335, 2005.
- [279] Zhe Dang and Oscar H. Ibarra. On P systems operating in sequential and limited parallel modes. In *Workshop on Descriptive Complexity of Formal Systems*, London-Ontario, 2004.
- [280] Zhe Dang, Oscar H. Ibarra, Cheng Li, and Gaoyan Xie. On model-checking of P systems. In *Unconventional Computation 4th International Conference, UC 2005, Sevilla, Spain, October 3-7, 2005. Proceedings*, volume 3699 of *Lecture Notes in Computer Science*. Springer Berlin / Heidelberg, 2005.
- [281] Vincent Danos, Jérôme Fret, Walter Fontana, Russell Harmer, and Jean Krivine. Investigation of a biological repair scheme. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 1–12, 2009.

- [282] D.K. Das and T. Renz. A simulator model for p systems with active membranes. In *Proceedings 2006 IEEE Conference on Emerging Technologies - Nanoelectronics*, pages 338–340, Singapore, January 2006.
- [283] J. Dassow and E. Csuhaj-Varju. On the syntactic complexity of darwinian membrane systems. In *BWMC4*, Sevilla, 2006.
- [284] J. Dassow and G. Vaszil. P finite automata and regular languages over countably infinite alphabets. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 323–336, Leiden, The Netherlands, 2006.
- [285] Jürgen Dassow and Erzsébet Csuhaj-Varjú. On the syntactic complexity of darwinian membrane systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 1–16. Fénix Editora, 2006.
- [286] Alfonso Ortega de la Puente, Rafael Núñez-Hervás, Marina de la Cruz-Echeandia, and Manuel Alfonseca. Christiansen grammar for some P systems. In *Third Brainstorming Week on Membrane Computing, Sevilla, 2005*, Sevilla, 2005.
- [287] G. Delzanno and L. Van Begin. On the dynamics of PB systems with volatile membranes. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 279–300, Thessaloniki, Greece, 2007.
- [288] Giorgio Delzanno and Laurent Begin. A biologically inspired model with fusion and clonation of membranes. In Cristian S. Calude, José Félix Costa, Rudolf Freund, Marion Oswald, and Grzegorz Rozenberg, editors, *Proceedings of the 7th international conference on Unconventional Computing*, volume 5204 of *Lecture Notes in Computer Science*, pages 64–82, 2008.
- [289] K. S. Dersanambika, Kamala Krithivasan, and K. G. Subramanian. P systems generating hexagonal picture languages. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 168–180. Springer, July 2003.
- [290] K.S. Dersanambika, Kamala Krithivasan, and K.G. Subramanian. P systems generating hexagonal picture languages. In Artiom Alhazov,

Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 209–221, Tarragona, July 17-22 2003.

- [291] D. Diaz-Pernil, M.A. Gutiérrez-Naranjo, M.J. Pérez-Jiménez, and A. Núñez. A cellular solution to subset sum using division of non-elementary membranes and dissolution, with time and initial resources bounded by  $\log k$ . In G. Eleftherakis and Gh. Păun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 301–316, Thessaloniki, Greece, 2007.
- [292] D. Diaz-Pernil, M.A. Gutiérrez-Naranjo, M.J. Pérez-Jiménez, and A. Núñez. Subset sum with tissue  $p$  systems with cell division. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 113–130, Sevilla (Spain), January 29th - February 2 2007.
- [293] D. Diaz-Pernil, M.A. Gutiérrez-Naranjo, M.J. Pérez-Jiménez, and A. Riscos-Núñez. An efficient solution to 3-col with tissue  $p$  systems. In N. Busi and C. Zandron, editors, *Proceedings MeCBIC 2006*, Venice, 2006.
- [294] Daniel Díaz-Pernil, Miguel A. Gutiérrez-Naranjo, Mario J. Pérez Jiménez, and Agustín Riscos-Núñez. Solving subset sum in linear time by using tissue  $P$  systems with cell division. In José Mira and José R. Álvarez, editors, *Proceedings of the 2nd international work-conference on The Interplay Between Natural and Artificial Computation, Part I: Bio-inspired Modeling of Cognitive Tasks*, volume 4527 of *Lecture Notes in Computer Science*, pages 170–179, 2007.
- [295] Daniel Díaz-Pernil, Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, and Agustín Riscos-Núñez. Solving the partition problem by using tissue-like  $P$  systems with cell division. In *Proceedings of the Third International Conference on Bio-Inspired Computing: Theories and Applications*, pages 43–47, 2008.
- [296] Daniel Díaz-Pernil, Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, and Agustín Riscos-Núñez. Solving the partition problem by using tissue-like  $P$  systems with cell division. In Daniel Díaz-Pernil, Carmen Graciani, Miguel Angel Gutiérrez-Naranjo, Gheorghe Păun, Ignacio Pérez-Hurtado, and Agustín Riscos-Núñez, editors, *Sixth Brainstorming Week on Membrane Computing*, pages 123–134, 2008.
- [297] Daniel Díaz-Pernil, Miguel-Angel Gutiérrez-Naranjo, and Mario-Jesús Pérez-Jiménez. Solving 3-col with tissue  $P$  systems. In

- Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 17–30. Fénix Editora, 2006.
- [298] Daniel Díaz-Pernil, Ignacio Pérez-Hurtado, and Mario J. Pérez-Jiménez Agustín Riscos-Núñez. A P-Lingua programming environment for membrane computing. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 187–203, 2009.
- [299] Agostino Dovier, Carla Piazza, and Gianfranco Rossi. Multiset constraints and P systems. In Cristian Calude, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Multiset Processing: Mathematical, Computer Science, and Molecular Computing Points of View*, volume 2235 of *Lecture Notes in Computer Science*, pages 103–122. Springer-Verlag, 2001.
- [300] Stanley Dunn and Peter Stivers. P system models of bistable, enzyme driven chemical reaction networks. In José Mira and José R. Álvarez, editors, *Proceedings of the 2nd international work-conference on The Interplay Between Natural and Artificial Computation, Part I: Bio-inspired Modeling of Cognitive Tasks*, volume 4527 of *Lecture Notes in Computer Science*, pages 203–213, 2007.
- [301] G. Bel Enguix and M.D. Jimenez-Lopez. Computing speech acts, artificial intelligence. In Ch. Bussler and D. Fensel, editors, *Methodology, Systems and Applications*, LNAI 3192, pages 236–245. Springer, 2004.
- [302] G. Bel Enguix and M.D. Jimenez-Lopez. Computing dialogues with membranes. In *Logic and Communication in Multi-Agent Systems*, LCMAS, 2005.
- [303] G. Bel Enguix and D. Jimenez Lopez. Modelling parallel phenomena in conversations with P systems. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 27–30, 2005.
- [304] G. Bel Enguix and M.D. Jimenez Lopez. Lp colonies for language evolution. a preview. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 179–192, 2005.
- [305] Raffael Fassler, Thomas Hinze, Thorsten Lenser, and Peter Dittrich. Construction of oscillating chemical register machines on binary numbers using mass-action kinetics. In Oscar H. Ibarra and Petr

- Sosík, editors, *Proceedings of Prague International Workshop on Membrane Computing*, pages 11–22, 2008.
- [306] L. Fernandez, F. Arroyo, I. Garcia, and A. Gutierrez. Parallel software architectures analysis for implementing P systems. In M. Sugisaka and H. Tanaka, editors, *Proceedings of the 12th Int. Symposium on Artificial Life and Robotics*, pages 494–499, Beppu, Oita, Japan, Jan 25-27 2007.
- [307] L. Fernandez, F. Arroyo, J.A. Tejedor, and J. Castellanos. Massively parallel algorithm for evolution rules application in transition p systems. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 337–343, Leiden, The Netherlands, 2006.
- [308] L. Fernandez, V.J. Martinez, F. Arroyo, and L.F. Mingo. A hardware circuit for selecting active rules in transition p systems. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 45–48, 2005.
- [309] Claudio Ferretti, Giancarlo Mauri, Gheorghe Păun, and Claudio Zandron. On three variants of P systems with string-objects. In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [310] Federico Fontana and Giuditta Franco. Maximum search using P systems. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 152–163, Sevilla, Spain, February 2-7 2004.
- [311] Federico Fontana and Vincenzo Manca. Discrete solution of differential equations by P metabolic algorithm. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 31–40. Fénix Editora, 2006.
- [312] G. Franco, P.H. Guzzi, V. Manca, and T. Mazza. Mitotic oscillators as mp graphs. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 344–356, Leiden, The Netherlands, 2006.
- [313] G. Franco, N. Jonoska, B. Osborn, and A. Plaas. Modeling knee injuries by membrane systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria, 2005*.

- [314] G. Franco and M. Margenstern. Computing by floating strings. In N. Busi and C. Zandron, editors, *Proceedings MeCBIC 2006*, Venice, 2006.
- [315] Giuditta Franco. Membrane Kauffman networks. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 164–167, Sevilla, Spain, February 2-7 2004.
- [316] Giuditta Franco and Vincenzo Manca. A membrane system for the leucocyte selective recruitment. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 222–230., Tarragona, July 17-22 2003.
- [317] Giuditta Franco and Vincenzo Manca. A membrane system for the leukocyte selective recruitment. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 181–190. Springer, July 2003.
- [318] Giuditta Franco and Vincenzo Manca. Modeling some biological phenomena by P systems. In *EMCC Workshop*, Vienna, November 2003.
- [319] Franziska Freund, Rudolf Freund, Marion Oswald, Maurice Margenstern, Yurii Rogozhin, and Sergey Verlan. P systems with cutting/recombination rules assigned to membranes. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 191–202. Springer, July 2003.
- [320] R. Freund and M. Oswald. P colonies working in the maximally parallel and in the sequential mode. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 49–56, 2005.
- [321] R. Freund and M. Oswald. Tissue p systems with mate and drip operations. In N. Busi and C. Zandron, editors, *Proceedings MeCBIC 2006*, Venice, 2006.
- [322] R. Freund and M. Oswald. Spiking neural p systems with inhibitory axons. In M. Sugisaka and H. Tanaka, editors, *Proceedings of the 12th*

*Int. Symposium on Artificial Life and Robotics*, pages 509–512, Beppu, Oita, Japan, Jan 25-27 2007.

- [323] R. Freund, M. Oswald, and T. Schirk. How a membrane agent buys goods in a membrane store. In *Proc. Bio-Inspired Computing – Theory and Applications Conf., BIC-TA 2006, Wuhan, China, September 2006, Membrane Computing Section.*, 2006.
- [324] R. Freund, M. Oswald, and T. Schirk. How a membrane agent buys goods in a membrane store. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 93–102, Wuhan, China, September 2006.
- [325] R. Freund, Gh. Păun, and M.J. Pérez-Jiménez. Polarizationless p systems with active membranes working in the minimally parallel manner. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 131–156, Sevilla (Spain), January 29th - February 2 2007.
- [326] R. Freund and S. Verlan. A formal framework for P systems. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 317–330, Thessaloniki, Greece, 2007.
- [327] Rudolf Freund. Generalized P systems. In Gabriel Ciobanu and Gheorghe Păun, editors, *Fundamentals of Computation Theory, FCT'99, Iasi, 1999*, volume 1684? of *Lecture Notes in Computer Science*, pages 281–292, Berlin, 1999. Springer-Verlag.
- [328] Rudolf Freund. Generalized P systems with splicing and cutting/recombination. In *Workshop on Formal Languages, FCT99, Iasi, 1999*.
- [329] Rudolf Freund. Sequential P systems. In Rudolf Freund, editor, *Theorettag 2000. Workshop on New Computing Paradigms*, pages 177–183. TU University Vienna, 2000.
- [330] Rudolf Freund. Energy-controlled P systems. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [331] Rudolf Freund. Energy-controlled P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597

of *Lecture Notes in Computer Science*, pages 247–260, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.

- [332] Rudolf Freund. Asynchronous P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 12–28, Milano, Italy, June 2004.
- [333] Rudolf Freund. P systeme im sequentiellen modus. In *Workshop Formale Methoden der Linguistik, and 14 Theorietag Automaten und Formale Sprachen*, pages 57–61, Potsdam, 2004.
- [334] Rudolf Freund. Particular results for variants of P systems with one catalyst in one membrane. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 41–50. Fénix Editora, 2006.
- [335] Rudolf Freund and Franziska Freund. Molecular computing with generalized homogeneous P systems. In Anne Condon and Grzegorz Rozenberg, editors, *Proc. Conf. DNA6*, pages 113–125, Leiden, 2000.
- [336] Rudolf Freund and Franziska Freund. Molecular computing with generalized homogeneous P-systems. In A. Condon and G. Rozenberg, editors, *DNA Computing: 6th International Workshop on DNA-Based Computers, DNA 2000, Leiden, The Netherlands, June 13-17, 2000, Revised Papers*, volume 2054 of *Lecture Notes In Computer Science*, pages 113–125, Leiden, The Netherlands, June 2001. Springer-Verlag Heidelberg.
- [337] Rudolf Freund and Theresia Gschwandtner. P systems for modelling biological processes in living cells. In Rudolf Freund and Marion Oswald, editors, *16. Theorietag Automaten und Formale Sprachen*, pages 46–50, 2006.
- [338] Rudolf Freund, Oscar H. Ibarra, Gheorghe Păun, and H.-C. Yen. Matrix languages, register machines, vector addition systems. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 155–168, 2005.
- [339] Rudolf Freund, Mihai Ionescu, and Marion Oswald. Extended spiking neural P systems with decaying spikes and/or total spiking. In György Vaszil, editor, *Proceedings of the International Workshop on Automata for Cellular and Molecular Computing*, pages 64–75, 2007.
- [340] Rudolf Freund, Alberto Leporati, Marion Oswald, and Claudio Zandron. Sequential P systems with unit rules and energy assigned to membranes. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro

Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 168–182, Sevilla, Spain, February 2-7 2004.

- [341] Rudolf Freund, Carlos Martín-Vide, Adam Obtulowicz, and Gheorghe Păun. On three classes of automata-like P systems. In Zoltán Ésik and Zoltán Fülöp, editors, *Developments in Language Theory, 7th International Conference, DLT 2003, Szeged, Hungary, July 7-11, 2003, Proceedings*, volume 2710 of *Lecture Notes In Computer Science*, pages 292–303. Springer-Verlag Heidelberg, 2003.
- [342] Rudolf Freund and Marion Oswald. Variants of GP Systems. In *Pre-Proceedings of Workshop on Membrane Computing, Curtea de Arges, Romania, August 2001*.
- [343] Rudolf Freund and Marion Oswald. Complexity of P automata with catalysts. In *EMCC Workshop, Vienna, November 2003*.
- [344] Rudolf Freund and Marion Oswald. P systems with activated/prohibited membrane channels. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 261–269, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [345] Rudolf Freund and Marion Oswald. P systems with conditional communication rules assigned to membranes. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 231–240, Tarragona, July 17-22 2003.
- [346] Rudolf Freund and Marion Oswald. P systems with elementary graph productions. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 180–188, Tarragona, February 5-11 2003.
- [347] Rudolf Freund and Marion Oswald. Modelling grammar systems by tissue P systems. In *Pre-Proceedings of Workshop on Grammar Systems, Computer and Automation Research Institute (SZTAKI) of the Hungarian Academy of Sciences (MTA)*, pages 162–179, Budapest, July 5-9 2004.
- [348] Rudolf Freund and Marion Oswald. P systems with antiport rules for evolution rules. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second*

*Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 183–192, Sevilla, Spain, February 2-7 2004.

- [349] Rudolf Freund and Marion Oswald. Tissue P systems with symport/antiport rules of one symbol are computationally universal. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 187–200, 2005.
- [350] Rudolf Freund and Marion Oswald. Small universal antiport P systems and universal multiset grammars. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 51–64. Fénix Editora, 2006.
- [351] Rudolf Freund, Marion Oswald, Franziska Freund, Maurice Margenstern, Sergey Verlan, and Yurii Rogozhin. P systems with cutting/recombination rules assigned to membranes. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 241–251, Tarragona, July 17-22 2003.
- [352] Rudolf Freund, Marion Oswald, and Andrei Păun. P systems generating trees. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 221–232, Milano, Italy, June 2004.
- [353] Rudolf Freund, Marion Oswald, and Ludwig Staiger. Omega-P automata with communication rules. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 252–265, Tarragona, July 17-22 2003.
- [354] Rudolf Freund, Marion Oswald, and Ludwig Staiger. omega-P automata with communication rules. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 203–217. Springer, July 2003.
- [355] Rudolf Freund and Andrei Păun. Membrane systems with symport/antiport: Universality results. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture*

*Notes in Computer Science*, pages 270–287, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.

- [356] Rudolf Freund and Andrei Păun. P systems with active membranes and without polarizations. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 193–205, Sevilla, Spain, February 2-7 2004.
- [357] Rudolf Freund, Gheorghe Păun, and Mario J. Pérez-Jiménez. Tissue-like P systems with channel-states. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 206–223, Sevilla, Spain, February 2-7 2004.
- [358] Rudolf Freund and Sergey Verlan. P systems working in the  $k$ -restricted minimally parallel derivation mode. In Erzsébet Csuhaj-Varjú, Rudolf Freund, Marion Oswald, and Kai Salomaa, editors, *International Workshop on Computing with Biomolecules*, pages 43–52, 2008.
- [359] P. Frisco. Infinite hierarchies of conformon-p systems. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 357–371, Leiden, The Netherlands, 2006.
- [360] P. Frisco. Conformon-p systems with negative values. In Gh. Paun G. Eleftherakis, P. Kefalas, editor, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 331–344, Thessaloniki, Greece, 2007.
- [361] P. Frisco and D. W. Corne. Dynamics of hiv infection studied with conformon-p systems. In *The Seventh International Conference on Systems Biology, October 9-13, 2006, Yokohama, Japan, Yokohama, Japan, october 9–13 2006*.
- [362] P. Frisco and D.W. Corne. Advances in modeling the dynamics of hiv infection with conformon-P systems. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 21–32, Thessaloniki, Greece, 2007.
- [363] P. Frisco and Ranulf T. Gibson. A simulator and an evolution program for conformon-P systems. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 57–60, 2005.

- [364] P. Frisco and P Systems. Petri nets and program machine. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 336–354, 2005.
- [365] Pierluigi Frisco. Membrane computing based on splicing: Improvements. In *Pre-Proceedings Workshop on Multiset Processing*, Curtea de Arges, Romania, August 2000.
- [366] Pierluigi Frisco. About P systems with symport/antiport. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 224–236, Sevilla, Spain, February 2-7 2004.
- [367] Pierluigi Frisco and Ranulf T. Gibson. A simulator for conformon P systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 355–372, 2005.
- [368] Pierluigi Frisco and Hendrik Jan Hoogeboom. Simulating counter automata by P systems with symport/antiport. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [369] Pierluigi Frisco and Hendrik Jan Hoogeboom. Simulating counter automata by P systems with symport/antiport. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 288–301, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [370] Pierluigi Frisco, Hendrik Jan Hoogeboom, and Paul Sant. A direct construction of a universal P system. In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [371] Pierluigi Frisco and Sungchul Ji. Info-energy P systems. In *Proceedings DNA 8 conference*, Sapporo, Japan, June 2002. Hokkaido University.
- [372] Pierluigi Frisco and Sungchul Ji. Towards a hierarchy of info-energy P systems. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [373] Pierluigi Frisco and Sungchul Ji. Towards a hierarchy of conformon-P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*,

pages 302–318, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.

- [374] Pierluigi Frisco and Gheorghe Păun. No cycles in compartments starting from conformon-P, systems. In Daniel Díaz-Pernil, Carmen Graciani, Miguel Angel Gutiérrez-Naranjo, Gheorghe Păun, Ignacio Pérez-Hurtado, and Agustín Riscos-Núñez, editors, *Sixth Brainstorming Week on Membrane Computing*, pages 157–179, 2008.
- [375] Juan Alberto Frutos, Fernando Arroyo, and Alberto Arteta. Usefulness states in new P system communication architectures. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 169–186, 2009.
- [376] Cheng Fu, Zhengwei Qi, and Jinyuan You. Encoding P systems in non-interleaving  $\pi$ -Calculus. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 233–244, Milano, Italy, June 2004.
- [377] M. Garcia-Arnau, D. Perez, A. Rodriguez-Paton, and P. Sosik. Spiking neural p systems: Stronger normal forms. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 157–178, Sevilla (Spain), January 29th - February 2 2007.
- [378] D. Genova. Models in membrane computing. In *Joint Annual Meeting MAA Florida Section and FTYCMA, Univ. of Central Florida*, February 2004.
- [379] Alexandros Georgiou and Marian Gheorghe. Generative devices used in graphics. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 266–272, Tarragona, July 17-22 2003.
- [380] Renana Gershoni, Ehud Keinan, Gheorghe Păun, Ron Piran, Tamar Ratner, and Sivan Shoshani. Research topics arising from the (planned) P systems implementation experiment in Technion. In Daniel Díaz-Pernil, Carmen Graciani, Miguel Angel Gutiérrez-Naranjo, Gheorghe Păun, Ignacio Pérez-Hurtado, and Agustín Riscos-Núñez, editors, *Sixth Brainstorming Week on Membrane Computing*, pages 183–192, 2008.
- [381] M. Gheorghe. P systems - a new computational approach in systems biology. In *Pre-proceedings of International Conference on Bio-Inspired*

*Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 7–14, Wuhan, China, September 2006.

- [382] M. Gheorghe, N. Krasnogor, Gh. Paun, and G. Rozenberg. Membrane computing model for tiles self-assembly. In *First Intern. Symp. on Cellular Computing, Warwick*, December 2004.
- [383] Marian Gheorghe. P systems: A modelling language. In *Pre-Proc. Unconventional Programming Paradigms, UPP04, Le Mont Saint-Michel*, pages 23–27, September 2004.
- [384] Marian Gheorghe, Mike Holcombe, and Petros Kefalas. Computational models of collective foraging. In *Proc. Fourth Intern. Workshop on Information Processing in IPCAT 2001, Cells and Tissues*, Brussels, August 2001.
- [385] Marian Gheorghe, Mike Holcombe, and Petros Kefalas. Eilenberg P systems: a bio-computational model. In *Proc. First Balkan Conf. on Informatics*, pages 147–160, Thessaloniki, Greece, 2003.
- [386] Marian Gheorghe and Florentin Ipate. On testing P systems. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 204–216, 2009.
- [387] Marian Gheorghe, Carlos Martín-Vide, Victor Mitrană, and Mario J. Pérez-Jiménez. An agent based approach of collective foraging. In José Mira and José R. Alvarez, editors, *Artificial Neural Nets. Problem Solving Methods 7th International Work-Conference on Artificial and Natural Neural Networks, IWANN 2003, Maó, Menorca, Spain, June 3-6. Proceedings, Part II.*, volume 2687 of *Lecture Notes in Computer Science*, pages 639–645. Springer, 2003.
- [388] Jean-Louis Giavitto and Olivier Michel. MGS: Implementing a unified view on four biologically inspired computing models. In *Pre-Proceedings of Workshop on Membrane Computing, Curtea de Arges, Romania*, August 2001.
- [389] Jean-Louis Giavitto and Olivier Michel. Accretive rules in Cayley P systems. In *Pre-Proceedings of Second Workshop on Membrane Computing, Curtea de Arges, Romania*, August 2002.
- [390] Jean-Louis Giavitto and Olivier Michel. Accretive rules in Cayley P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23*,

2002. *Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 319–338, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [391] F. Javier Gil, Luis Fernández, Fernando Arroyo, and Juan Alberto de Frutos. Parallel algorithm for P systems implementation in multi-processors. In Masanori Sugisaka and Hiroshi Tanaka, editors, *13th International Symposium on Artificial Life and Robotics*, pages 491–495, 2008.
- [392] David Gilbert, Rainer Breitling, Monika Heiner, and Robin Donaldson. An introduction to biomodel engineering, illustrated for signal transduction pathways. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 13–28, 2009.
- [393] M. Gontineac. Mealy membrane automata: an automata-like approach to membrane computing. In *Proc. of ICCCC 2006, Oradea, Romania, June 2006*, pages 222–227.
- [394] C. Graciani and Agustín Riscos-Nunez. Looking for simple common schemes to design recognizer p systems with active membranes that solve numerical decision problems. In *CiE2005: New Computational Paradigms*, Amsterdam, 2005.
- [395] C. Graciani-Diaz, M.A. Gutiérrez-Naranjo, and M.J. Pérez-Jiménez. A membrane computing model for ballistic depositions. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Riscos-Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 179–198, Sevilla (Spain), January 29th - February 2 2007.
- [396] Carmen Graciani-Díaz and Agustín Riscos-Núñez. Looking for simple common schemes to design recognizer P systems with active membranes that solve numerical decision problems. In *Unconventional Computation 4th International Conference, UC 2005, Sevilla, Spain, October 3-7, 2005. Proceedings*, volume 3699 of *Lecture Notes in Computer Science*. Springer Berlin / Heidelberg, 2005.
- [397] A. Gutiérrez, L. Fernandez, F. Arroyo, and G. Bravo. Optimizing membrane system implementation with multisets and evolution rules compression. In G. Eleftherakis and Gh. Păun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 345–362, Thessaloniki, Greece, 2007.

- [398] Abraham Gutierrez, Luis Fernández, Fernando Arroyo, and Santiago Alonso. Suitability of using microcontrollers in implementing new P system communication architectures. In Masanori Sugisaka and Hiroshi Tanaka, editors, *13th International Symposium on Artificial Life and Robotics*, pages 496–499, 2008.
- [399] M. A. Gutiérrez-Naranjo, M. J. Perez-Jimenez, A. Riscos-Nunez, and F. J. Romero-Campero. Characterizing tractability with membrane creation. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 61–68, 2005.
- [400] M.A. Gutiérrez-Naranjo, M.J. Perez Jimenez, and F.J. Romero Campero. A linear solution for qsat with membrane creation. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 395–409, 2005.
- [401] M.A. Gutiérrez-Naranjo, M.J. Perez Jimenez, A. Riscos Nunez, and F.J. Romero Campero. On the power of dissolution in p systems with active membranes. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 373–394, 2005.
- [402] M.A. Gutiérrez-Naranjo, M.J. Perez-Jimenez, A. Riscos-Nunez, and F.J. Romero-Campero. A membrane computing view on tumours. In *Proc. Bio-Inspired Computing – Theory and Applications Conf., BIC-TA 2006 Wuhan, China, September 2006, Membrane Computing Section.*, 2006.
- [403] M.A. Gutiérrez-Naranjo, M.J. Perez-Jimenez, A. Riscos-Nunez, and F.J. Romero-Campero. A membrane computing view on tumours. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 103–112, Wuhan, China, September 2006.
- [404] M.A. Gutiérrez-Naranjo, M.J. Perez-Jimenez, A. Riscos-Nunez, and F.J. Romero-Campero. On the efficiency of cell-like and tissue-like recognizer membrane systems. In *Proceedings of NICSO*, 2006.
- [405] M.A. Gutiérrez-Naranjo, M.J. Perez-Jimenez, and F.J. Romero-Campero. A linear solution of subset sum problem by using membrane creation. In J. Mira and J.R. Alvarez, editors, *IWINAC 2005, Las Palmas de Gran Canaria*, LNCS 3561, pages 258–267. Springer, 2005.
- [406] Miguel A. Gutiérrez-Naranjo and Mario J. Pérez-Jiménez. Hebbian learning from spiking neural P systems view. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto

Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 217–230, 2009.

- [407] Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, and Agustín Riscos-Núñez. Solving numerical NP-complete problems using P systems with active membranes: the partition problem and beyond. In *EMCC Workshop*, Vienna, November 2003.
- [408] Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, and Agustín Riscos-Núñez. An efficient cellular solution for the Partition Problem. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 237–246, Sevilla, Spain, February 2-7 2004.
- [409] Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, and Agustín Riscos-Núñez. On descriptive complexity of P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 245–255, Milano, Italy, June 2004.
- [410] Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, and Agustín Riscos-Núñez. Towards a programming language in cellular computing. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 247–257, Sevilla, Spain, February 2-7 2004.
- [411] Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, Agustín Riscos-Núñez, and Francisco J. Romero-Campero. P systems with active membranes, without polarizations and without dissolution: A characterization of P. In *Unconventional Computation 4th International Conference, UC 2005, Sevilla, Spain, October 3-7, 2005. Proceedings*, volume 3699 of *Lecture Notes in Computer Science*. Springer Berlin / Heidelberg, 2005.
- [412] Miguel A. Gutiérrez-Naranjo and Vladimir Rogozhin. Deductive databases and P systems. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 258–263, Sevilla, Spain, February 2-7 2004.
- [413] Miguel Angel Gutiérrez-Naranjo, Alberto Leporati, and Claudio Zandron. Converting integer numbers from binary to unary notation with P systems. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 201–208, 2005.

- [414] Miguel Angel Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, and Francisco José Romero-Campero. Solving SAT with membrane creation. In *CiE2005: New Computational Paradigms*, Amsterdam, 2005.
- [415] Miguel Angel Gutiérrez-Naranjo and Mario Jesús Pérez-Jiménez. P systems with membrane creation and rule input. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 209–224, 2005.
- [416] Miguel-Angel Gutiérrez-Naranjo and Mario-Jesús Pérez-Jiménez. Fractals and P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 65–86. Fénix Editora, 2006.
- [417] Miguel Angel Gutiérrez-Naranjo, Mario Jesús Pérez-Jiménez, and Agustín Riscos-Núñez. Multidimensional sevilla carpets associated with P systems. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 225–236, 2005.
- [418] Miguel Angel Gutiérrez-Naranjo, Mario Jesús Pérez-Jiménez, and Agustín Riscos-Núñez. A simulator for confluent P systems. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 169–184, 2005.
- [419] Miguel-Angel Gutiérrez-Naranjo, Mario-Jesús Pérez-Jiménez, and Agustín Riscos-Núñez. An approach to the degree of parallelism in P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 87–104. Fénix Editora, 2006.
- [420] Miguel Angel Gutiérrez-Naranjo, Mario Jesús Pérez-Jiménez, and Francisco José Romero-Campero. Simulating avascular tumors with membrane systems. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 185–196, 2005.
- [421] E. Gutuleac. Descriptive times membrane petri nets for modelling of parallel computing. In *Proc. of ICCCC 2006, Oradea, Romania, June 2006*, pages 256–261.
- [422] T. Hinze, S. Hayat, T. Lenser, N. Matsumaru, and P. Dittrich. Hill kinetics meets P systems: A case study on gene regulatory networks as computing agents in silico and in vivo. In G. Eleftherakis and

- Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 363–382, Thessaloniki, Greece, 2007.
- [423] T. Hinze, T. Lenser, and P. Dittrich. A protein substructure based p system for description and analysis of cell signalling networks. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 372–286, Leiden, The Netherlands, 2006.
- [424] Thomas Hinze, Raffael Fassler, Thorsten Lenser, Naoki Matsumaru, and Peter Dittrich. Event-driven metamorphoses of P systems. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 231–245, 2009.
- [425] Paulien Hogeweg. Multilevel modeling of morphogenesis. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 29–35, 2009.
- [426] Mike Holcombe, Lucy Holcombe, Marian Gheorghe, and N. Talbot. A hybrid machine model of rice blast fungus magnaporthe grisea. In *Proc. Fourth Intern. Workshop on Information Processing in IPCAT 2001, Cells and Tissues*, Brussels, August 2001.
- [427] Hendrik Jan Hoogeboom. Carriers and counters. P systems with carriers vs. (blind) counter automata. In Masami Ito and Masafumi Toyama, editors, *Developments in Language Theory, 6th International Conference, DLT 2002, Kyoto, Japan, September 18-21, 2002, Revised Papers*, volume 2450 of *Lecture Notes In Computer Science*, pages 140–151. Springer-Verlag Heidelberg, 2003.
- [428] L. Huang, X.-X. He, N. Wang, and Y. Xie. P systems based multi-objective optimization algorithm. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 113–123, Wuhan, China, September 2006.
- [429] L. Huang and N. Wang. An optimization algorithms inspired by membrane computing. In L. Jiao, editor, *Proceedings ICNC*, volume 4222 of *Lecture Notes In Computer Science*, pages 49–55. Springer, 2006.
- [430] L. Huang and N. Wang. P systems based multi-objective optimization algorithm. In *Proc. Bio-Inspired Computing – Theory and Applications*

*Conf., BIC-TA 2006, Wuhan, China, September 2006, Membrane Computing Section., 2006.*

- [431] O. Ibarra and S. Woodworth. On symport/antiport  $p$  systems with one or two symbols. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 75–82, 2005.
- [432] O.H. Ibarra. Some recent results concerning deterministic  $p$  systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria, pages 24–25*, 2005.
- [433] O.H. Ibarra and A. Paun. Counting time in computing with cells. In *DNA11, London, Ontario, Canada, 2005*.
- [434] O.H. Ibarra and Gh. Păun. Membrane computing: A general view. In *Annals of European Academy of Sciences*, to appear, 2008.
- [435] O.H. Ibarra and S. Woodworth. On bounded symport/antiport  $p$  systems. In *DNA11, London, Ontario, Canada, 2005*.
- [436] O.H. Ibarra and S. Woodworth. Characterizations of some restricted spiking neural  $p$  systems. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 387–396, Leiden, The Netherlands, 2006.
- [437] O.H. Ibarra and S. Woodworth. Characterizations of some restricted spiking neural  $p$  systems. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 387–396, Leiden, The Netherlands, 2006.
- [438] Oscar H. Ibarra. The number of membranes matters. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 273–285, Tarragona, July 17-22 2003.
- [439] Oscar H. Ibarra. The number of membranes matters. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 218–231. Springer, July 2003.
- [440] Oscar H. Ibarra.  $P$  systems: Some recent results and research problems. In *Pre-Proc. Unconventional Programming Paradigms, UPP04, Le Mont Saint-Michel*, pages 47–54, September 2004.

- [441] Oscar H. Ibarra, Zhe Dang, Omer Egecioglu, and Gaurav Saxena. Characterizations of catalytic membrane computing systems (extended abstract). In Peter Vojtá Branislav Rován, editor, *Mathematical Foundations of Computer Science 2003: 28th International Symposium, MFCS 2003, Bratislava, Slovakia, August 25-29, 2003, Proceedings*, volume 2747 of *Lecture Notes In Computer Science*, pages 480–489. Springer-Verlag Heidelberg, December 2003.
- [442] Oscar-H. Ibarra, Andrei Paun, Gheorghe Paun, Alfonso Rodríguez-Patón, Petr Sosik, and Sara Woodworth. Normal forms for spiking neural P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 105–136. Fénix Editora, 2006.
- [443] Oscar H. Ibarra, Andrei Păun, and Alfonso Rodríguez-Patón. Sequentiality induced by spike numbers in SNP systems. In *Proceedings of the 14th International Meeting on DNA Computing*, pages 36–46, 2008.
- [444] Oscar H. Ibarra and Sara Woodworth. Spiking neural P systems: Some characterizations. In Erzsébet Csuhaj-Varjú and Zoltán Ésik, editors, *Fundamentals of Computation Theory, 16th International Symposium*, volume 4639 of *Lecture Notes in Computer Science*, pages 23–37, 2007.
- [445] J. Inouye. Fibonacci sequence generation using membrane computing. In *The 2004 Intern. Multiconference in Computer Science and Computer Engineering, Las Vegas*, pages 384–389, 2004.
- [446] J. Inouye. Quantum simulation using membrane computing. In *The 2004 Intern. Multiconference in Computer Science and Computer Engineering, Las Vegas*, pages 403–409, 2004.
- [447] M. Ionescu and T.O. Ishdorj. Boolean circuits and a dna algorithm in membrane computing. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 410–438, 2005.
- [448] M. Ionescu, A. Paun, Gh. Paun, and M.J. Perez-Jimenez. Computing with spiking neural p systems: Traces and small universal systems. In C. Mao, Y. Yokomori, and B.-T. Zhang, editors, *Proceedings DNA12*, pages 32–42, Seoul, June 2006.
- [449] M. Ionescu and D. Sburlan. P systems with adjoining controlled communication rules. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming*

*Week on Membrane Computing*, pages 199–212, Sevilla (Spain), January 29th - February 2 2007.

- [450] M. Ionescu and D. Sburlan. Several applications of spiking neural p systems. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 213–226, Sevilla (Spain), January 29th - February 2 2007.
- [451] M. Ionescu and D. Sburlan. Some applications of spiking neural P systems. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 383–394, Thessaloniki, Greece, 2007.
- [452] Mihai Ionescu, Carlos Martín-Vide, Andrei Păun, and Gheorghe Păun. Unexpected universality results for three classes of P systems with symport/antiport. In M. Hagiya and A. Ohuchi, editors, *DNA Computing: 8th International Workshop on DNA-Based Computers, DNA8 Sapporo, Japan, June 10-13, 2002. Revised Papers*, volume 2568 of *Lecture Notes In Computer Science*, pages 281–290. Springer-Verlag Heidelberg, 2003.
- [453] Mihai Ionescu, Carlos Martín-Vide, and Gheorghe Păun. P systems with symport/antiport rules: The traces of objects. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [454] Mihai Ionescu and Dragoş Sburlan. P systems with adjoining controlled communication rules. In Erzsébet Csuhaj-Varjú and Zoltán Ésik, editors, *Fundamentals of Computation Theory, 16th International Symposium*, volume 4639 of *Lecture Notes in Computer Science*, pages 353–364, 2007.
- [455] Mihai Ionescu and Dragoş Sburlan. Some applications of spiking neural P systems. In George Eleftherakis, Petros Kefalas, and Gheorghe Păun, editors, *Proceedings of the Eighth Workshop on Membrane Computing*, pages 383–394, 2007.
- [456] Mihai Ionescu and Dragoş Sburlan. On P systems with promoters/inhibitors. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 264–280, Sevilla, Spain, February 2-7 2004.
- [457] Florentin Ipate and Marian Gheorghe. Testing non-deterministic stream X-machine models and P systems. In Gabriel Ciobanu, editor,

*Second International Meeting on Membrane Computing and Biologically Inspired Process Calculi*, pages 117–130, 2008.

- [458] John Jack, Andrei Păun, and Alfonso Rodríguez-Patón. Effects of HIV-1 proteins on the Fas-mediated apoptotic signaling cascade: A computational study of latent CD4+, T cell activation. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 246–259, 2009.
- [459] Duncan Jackson, Marian Gheorghe, Mike Holcombe, and Francesco Bernardini. An agent-based behavioural model of monomorium pharaonis colonies. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 232–239. Springer, July 2003.
- [460] Sungchul Ji. The Bhopalator: An information/energy dual model of the living cell. In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [461] Sungchul Ji. Towards a unified theory of computing, mind, and signs. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 189–197, Tarragona, February 5-11 2003.
- [462] Petros Kefalas, Ioanna Stamatopoulou, George Eleftherakis, and Marian Gheorghe. Transforming state-based models to P systems models in practice. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 260–273, 2009.
- [463] Petros Kefalas, Ioanna Stamatopoulou, and Marian Gheorghe. Principles of transforming communicating X-machines to population P systems. In György Vaszil, editor, *Proceedings of the International Workshop on Automata for Cellular and Molecular Computing*, pages 76–89, 2007.
- [464] J. Kelemen. Plain talk about language-theoretic models of multi-agent systems. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 395–404, Thessaloniki, Greece, 2007.

- [465] Jozef Kelemen, Alica Kelemenova, and Gheorghe Păun. P colonies. In *Workshop on Artificial Chemistry, ALIFE9*, Boston, Massachusetts, USA, September 12-15 2004.
- [466] C. Kevorchian. An algebraic topology approach of membrane computing. In *Proc. AIDC'2003, Craiova, Romania.*, 2003.
- [467] Markus Kirkilionis, Mirela Domijan, Martin Eigel, Erwin George, Mike Li, and Luca Sbanò. A definition of cellular interface problems. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 36–62, 2009.
- [468] Markus Kirkilionis, Mirela Domijan, Martin Eigel, Erwin George, Mike Li, and Luca Sbanò. A definition of cellular interface problems. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 36–62, 2009.
- [469] J. Kleijn and M. Koutny. Synchrony and asynchrony in membrane systems. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 21–39, Leiden, The Netherlands, 2006.
- [470] J. Kleijn, M. Koutny, and G. Rozenberg. Towards a petri net semantics for membrane systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 439–460, 2005.
- [471] W. Korczynski. Paun's systems and accounting. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 461–464, 2005.
- [472] W. Korczynski. Paun's systems as models of economic systems. In *Proc. Bio-Inspired Computing – Theory and Applications Conf., BIC-TA 2006, Wuhan, China, September 2006, Membrane Computing Section.*, 2006.
- [473] W. Korczynski. Paun's systems as models of economic systems. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 124–130, Wuhan, China, September 2006.
- [474] Waldemar Korczynski, G. Wawrzola, and S. Wawrzola. On a reconstruction problem for membrane systems. In *Proceedings of the Second Conference on Tools and Methods of Data Transformation*. WSU Kielce, 2004.

- [475] W. Kowczynski. On a model of economic systems. In *Proceedings of the Second Conference on Tools and Methods of Data Transformation*. WSU Kielce, 2004.
- [476] Alexander Krassovitskiy, Yurii Rogozhin, and Sergey Verlan. One-sided insertion and deletion: traditional and P systems case. In Erzsébet Csuhaaj-Varjú, Rudolf Freund, Marion Oswald, and Kai Salomaa, editors, *International Workshop on Computing with Biomolecules*, pages 51–63, 2008.
- [477] Shankara-Narayanan Krishna. P systems with symport/antiport: The traces of RBCs. In Giancarlo Mauri, Gheorghe Păun, Mario J. Pérez-Jiménez, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing. International Workshop WMC5, Milano, Italy, 2004, LNCS, Springer, 2005 (TO APPEAR)*.
- [478] Shankara-Narayanan Krishna. Computing with simple P systems. In *Pre-Proceedings Workshop on Multiset Processing*, Curtea de Arges, Romania, August 2000.
- [479] Shankara-Narayanan Krishna. Universality with RBC-like objects. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 256–267, Milano, Italy, June 2004.
- [480] Shankara Narayanan Krishna. On the efficiency of a variant of P systems with mobile membranes. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 237–246, 2005.
- [481] Shankara Narayanan Krishna. The power of mobility: four membranes suffice. In *CiE2005: New Computational Paradigms*, Amsterdam, 2005.
- [482] Shankara Narayanan Krishna. On the computational power of flip-flop proteins on membranes. In S. Barry Cooper, Benedikt Löwe, and Andrea Sorbi, editors, *Proceedings of the 3rd conference on Computability in Europe: Computation and Logic in the Real World*, volume 4497 of *Lecture Notes in Computer Science*, pages 695–704, 2007.
- [483] Shankara Narayanan Krishna. The expressiveness of concentration controlled P systems. In Cristian S. Calude, José Félix Costa, Rudolf Freund, Marion Oswald, and Grzegorz Rozenberg, editors, *Proceedings of the 7th international conference on Unconventional Computing*, volume 5204 of *Lecture Notes in Computer Science*, pages 96–110, 2008.
- [484] Shankara Narayanan Krishna and Gabriel Ciobanu. On the computational power of enhanced mobile membranes. In Arnold Beckmann,

- Costas Dimitracopoulos, and Benedikt Löwe, editors, *Proceedings of the 4th conference on Computability in Europe: Logic and Theory of Algorithms*, volume 5028 of *Lecture Notes in Computer Science*, pages 326–335, 2008.
- [485] Shankara-Narayanan Krishna, Kuppuswamy Lakshmanan, and Raghavan Rama. On the power of P systems with contextual rules. In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [486] Shankara-Narayanan Krishna, Kuppuswamy Lakshmanan, and Raghavan Rama. Tissue P systems with contextual and rewriting rules. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [487] Shankara-Narayanan Krishna, Kuppuswamy Lakshmanan, and Raghavan Rama. Tissue P systems with contextual and rewriting rules. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 339–351, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [488] Shankara-Narayanan Krishna and Andrei Păun. Some universality results on evolution-communication P systems. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 207–215, Tarragona, February 5-11 2003.
- [489] Shankara-Narayanan Krishna and Andrei Păun. Three universality results on P systems. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 198–206, Tarragona, February 5-11 2003.
- [490] Shankara-Narayanan Krishna and Raghavan Rama. Insertion-deletion P systems. In Natasha Jonoska and N.C. Seeman, editors, *Proc. 7th Intern. Meeting on DNA Based Computers*, pages 350–359, Tampa, Florida, USA, 2001.
- [491] Shankara Narayanan Krishna and Raghavan Rama. On the power of tissue P systems working in minimal mode. In Cristian Calude, Michael J. Dinneen, and Ferdinand Peper, editors, *Unconventional Models of Computation: Third International Conference, UMC 2002, Kobe, Japan, October 15-19, 2002. Proceedings*, volume 2509 of *Lecture Notes*

In *Computer Science*, pages 208–219, London, UK, October 15–19 2002. Springer-Verlag Heidelberg.

- [492] S.N. Krishna. Combining brane calculus and membrane computing. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 131–143, Wuhan, China, September 2006.
- [493] S.N. Krishna. Combining brane calculus and membrane computing. In *Proc. Bio-Inspired Computing – Theory and Applications Conf., BIC-TA 2006, Wuhan, China, September 2006, Membrane Computing Section.*, 2006.
- [494] Kamala Krithivasan. P Automata with tapes. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 216–225, Tarragona, February 5-11 2003.
- [495] Manfred Kudlek, Carlos Martín-Vide, and Gheorghe Păun. Toward FMT (formal macroset theory). In *Pre-Proceedings Workshop on Multiset Processing*, Curtea de Arges, Romania, August 2000.
- [496] Manfred Kudlek, Carlos Martín-Vide, and Gheorghe Păun. Toward a formal macroset theory. In Cristian Calude, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Multiset Processing: Mathematical, Computer Science, and Molecular Computing Points of View*, volume 2235 of *Lecture Notes in Computer Science*, pages 123–134. Springer-Verlag, 2001.
- [497] Manfred Kudlek and Victor Mitrana. Some considerations on a multiset model for membrane computing. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [498] Manfred Kudlek and Victor Mitrana. Considerations on a multiset model for membrane computing. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 352–359, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [499] Kuppuswamy Lakshmanan and Raghavan Rama. On the power of tissue P systems with insertion and deletion rules. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 304–318, Tarragona, July 17-22 2003.

- [500] Lucas Ledesma, Daniel Manrique, Alfonso Rodríguez-Patón, and Andrés Silva. A tissue P system and a DNA microfluidic device for solving the shortest common superstring problem. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 281–291, Sevilla, Spain, February 2-7 2004.
- [501] Leporati and D. Pagani. A membrane algorithm for the min storage problem. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 397–416, Leiden, The Netherlands, 2006.
- [502] A. Leporati. Quantum (UREM) P systems: Background, definition and computational power. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 33–56, Thessaloniki, Greece, 2007.
- [503] A. Leporati, G. Mauri, and C. Zandron. Quantum sequential p systems with unit rules and energy assigned to membranes. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 465–484, 2005.
- [504] A. Leporati, D. Pescini, and C. Zandron. Quantum energy-based P systems. In *First brainstorming Workshop on Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004*, 2004.
- [505] A. Leporati, C. Zandron, C. Ferretti, and G. Mauri. On the computational power of spiking neural p systems. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Riscos-Nunez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 227–246, Sevilla (Spain), January 29th - February 2 2007.
- [506] A. Leporati, C. Zandron, C. Ferretti, and G. Mauri. Solving numerical NP-complete problems with spiking neural P systems. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 405–424, Thessaloniki, Greece, 2007.
- [507] A. Leporati, C. Zandron, and G. Mauri. Solving the factorization problem with p systems. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 144–153, Wuhan, China, September 2006.
- [508] A. Leporati, C. Zandron, and G. Mauri. Solving the factorization problem with p systems. In *Proc. Bio-Inspired Computing – Theory*

*and Applications Conf., BIC-TA 2006, Wuhan, China, September 2006, Membrane Computing Section., 2006.*

- [509] Alberto Leporati and Sara Felloni. Three quantum algorithms to solve 3-SAT. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 137–160. Fénix Editora, 2006.
- [510] Alberto Leporati and Claudio Zandron. A family of P systems which solve 3-SAT. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 247–256, 2005.
- [511] Alberto Leporati, Claudio Zandron, and Giancarlo Mauri. Conservative computations in energy-based P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 268–283, Milano, Italy, June 2004.
- [512] Alberto Leporati, Claudio Zandron, and Giancarlo Mauri. Simulating the Fredkin gate with energy-based P systems. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 292–308, Sevilla, Spain, February 2-7 2004.
- [513] Alberto Leporati, Claudio Zandron, and Giancarlo Mauri. How redundant is your universal computation device? In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 274–291, 2009.
- [514] C. Li, Z. Dang, O. Ibarra, and H.C. Yen. Signaling p systems and verification problems. In *ICALP'05*, , July 11-15 2005.
- [515] C. Li, Z. Dang, O.H. Ibarra, and H.-C. Yen. Signaling p systems and verification problems. In *Proceedings of ICALP 2005*, LNCS 3586, pages 1462–1473. Springer, 2005.
- [516] G. Liu and M. Ionescu. Further remarks on trace languages in p systems with symport/antiport. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 417–428, Leiden, The Netherlands, 2006.

- [517] Guangwu Liu and Mihai Ionescu. Further remarks on trace languages in P systems with symport/antiport. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 161–172. Fénix Editora, 2006.
- [518] H. Long and Y. Fu. Building combinational p automata with rewriting and active membrane rules. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 154–159, Wuhan, China, September 2006.
- [519] H. Long and Y. Fu. Building combinational p automata with rewriting and active membrane rules. In *Proc. Bio-Inspired Computing – Theory and Applications Conf., BIC-TA 2006, Wuhan, China, September 2006, Membrane Computing Section.*, 2006.
- [520] D. Lopez and J.M. Sempere. Editing distances between membrane structures. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 485–504, 2005.
- [521] Dorel Lucanu. Rewriting logic-based semantics of membrane systems and the maximal concurrency. In Oscar H. Ibarra and Petr Sosík, editors, *Proceedings of Prague International Workshop on Membrane Computing*, pages 23–34, 2008.
- [522] Mutyam Madhu. Complexity issues in rewriting P systems. In *Pre-proceedings of Fourth International Workshop on Descriptive Complexity of Formal Systems, DCFS-2002*, London, Ontario, Canada, August 21-24 2002.
- [523] Mutyam Madhu. New results in rewriting P systems. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 232–240, Tarragona, February 5-11 2003.
- [524] Mutyam Madhu and Kamala Krithivasan. P systems with membrane creation: Universality and efficiency. In Maurice Margenstern and Yurii Rogozhin, editors, *Machines, Computations, and Universality. Third International Conference, MCU 2001 Chisinau, Moldova, May 23-27, 2001. Proceedings.*, volume 2055 of *Lecture Notes in Computer Science*, pages 276–287, Berlin, 2001. Springer-Verlag.
- [525] Mutyam Madhu and Kamala Krithivasan. Universality results for some variants of P systems. In Cristian Calude, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Multiset Processing:*

*Mathematical, Computer Science, and Molecular Computing Points of View*, volume 2235 of *Lecture Notes in Computer Science*, pages 237–253, Berlin, 2001. Springer-Verlag.

- [526] Mutyam Madhu and Kamala Krithivasan. A survey on some variants P systems. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [527] Mutyam Madhu and Kamala Krithivasan. A survey on some variants P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 360–370, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [528] Mihaela Malita. Membrane computing in Prolog. In *Pre-Proceedings Workshop on Multiset Processing*, Curtea de Arges, Romania, August 2000.
- [529] V. Manca. Metabolic p systems for biomolecular dynamics. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 15–26, Wuhan, China, September 2006.
- [530] V. Manca. Mp systems approaches to biochemical dynamics: Biological rhythms and oscillations. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 40–53, Leiden, The Netherlands, 2006.
- [531] Vincenzo Manca. Topics and problems in metabolic P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 173–184. Fénix Editora, 2006.
- [532] Vincenzo Manca. Monoidal systems and membrane systems. In *Pre-proceedings of Workshop on Multiset Processing*, Curtea de Arges, Romania.
- [533] Vincenzo Manca. Membrane algorithms for propositional satisfiability. In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [534] Vincenzo Manca. On the dynamics of P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 29–43, Milano, Italy, June 2004.

- [535] Vincenzo Manca. Enumerating membrane structures. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 292–298, 2009.
- [536] Vincenzo Manca, Luca Bianco, and Federico Fontana. Evolution and oscillation in P systems: Applications to biological phenomena. In Giancarlo Mauri, Gheorghe Păun, Mario J. Pérez-Jiménez, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC5, Milano, Italy, 2004, Selected Papers (G. Mauri, Gh. Paun, M.J. Perez-Jimenez, G. Rozenberg, A. Salomaa, eds.)*, LNCS, Springer-Verlag, Berlin, 2005, to appear.
- [537] Vincenzo Manca, Roberto Pagliarini, and Simone Zorzan. Toward an MP model of non-photochemical quenching. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 299–310, 2009.
- [538] Solomon Marcus. Membranes versus DNA. In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [539] Solomon Marcus. Bridging P systems and genomics: A preliminary approach. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 371–376, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [540] Maurice Margenstern. Can hyperbolic geometry be of help for P systems? In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 240–249. Springer, July 2003.
- [541] Maurice Margenstern. Can hyperbolic geometry be of help for P systems? In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 319–325., Tarragona, July 17-22 2003.
- [542] Maurice Margenstern. Can hyperbolic geometry help molecular computing? In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe

Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 226–231, Tarragona, February 5-11 2003.

- [543] Maurice Margenstern, Carlos Martín-Vide, and Gheorghe Păun. Computing with membranes, variants with an enhanced membrane handling. In Natasha Jonoska and N.C. Seeman, editors, *Proc. 7th Intern. Meeting on DNA Based Computers*, pages 53–62, Tampa, Florida, USA, 2001.
- [544] Maurice Margenstern, Carlos Martín-Vide, and Gheorghe Păun. Computing with membranes: Variants with an enhanced membrane handling. In N.C. Seeman N. Jonoska, editor, *Proceedings 7th International Meeting on DNA Based Computers*, pages 53–62, Tampa, Florida, USA, June 10-13 2001.
- [545] Maurice Margenstern, Vladimir Rogozhin, Yurii Rogozhin, and Sergey Verlan. About P systems with minimal symport/antiport rules and four membranes. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 283–294, Milano, Italy, June 2004.
- [546] E. Martegani, R. Tisi, F. Belotti, S. Colombo, C. Paiardi, J. Winderickx, P. Cazzaniga, D. Besozzi, and G. Mauri. Identification of an intracellular signalling complex for ras/camp pathway in yeast: experimental evidences and modelling. In *ISSY 25 Conf., Hanassari, Espo, Finland, 2006*, 2006.
- [547] Carlos Martín-Vide and Victor Mitrana. P systems with valuations. In I. Antoniou, Cristian Calude, and M.J. Dinneen, editors, *Unconventional Models of Computation*, pages 154–166, London, February 2000. Springer-Verlag. Contributed paper.
- [548] Carlos Martín-Vide and Gheorghe Păun. String-objects in P systems. In *Proc. of Algebraic Systems, Formal Languages and Computations Workshop*, pages 161–169, Kyoto, 2000. RIMS Kokyuroku, Kyoto Univ.
- [549] Carlos Martín-Vide and Gheorghe Păun. Computing with membranes (P systems): Universality results. In Maurice Margenstern and Yurii Rogozhin, editors, *Machines, Computations, and Universality. Third International Conference, MCU 2001 Chisinau, Moldova, May 23-27, 2001. Proceedings.*, volume 2055 of *Lecture Notes in Computer Science*, pages 82–101, Chisinau, Moldova, 2001. Springer-Verlag.
- [550] José L. Maté, Alfonso Rodríguez-Patón, and Andrés Silva. On the power of P systems with DNA-Worms. In *Pre-Proceedings of Workshop on Membrane Computing, Curtea de Arges, Romania, August 2001*.

- [551] Giancarlo Mauri, Marion J. Pérez Jiménez, and Claudio Zandron. On a Păun's conjecture in membrane systems. In José Mira and José R. Álvarez, editors, *Proceedings of the 2nd international work-conference on The Interplay Between Natural and Artificial Computation, Part I: Bio-inspired Modeling of Cognitive Tasks*, volume 4527 of *Lecture Notes in Computer Science*, pages 180–192, 2007.
- [552] T. Mazza. Towards a complete covering of SBML functionalities. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 425–444, Thessaloniki, Greece, 2007.
- [553] Tommaso Mazza and Matteo Cavaliere. Cell cycle and tumor growth in membrane systems with peripheral proteins. In Gabriel Ciobanu, editor, *Second International Meeting on Membrane Computing and Biologically Inspired Process Calculi*, pages 145–158, 2008.
- [554] Olivier Michel and Florent Jacquemard. Analysis of the Needham-Schroeder public-key protocol with MGS. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 295–315, Milano, Italy, June 2004.
- [555] D. Molteni, C. Ferretti, and G. Mauri. Frequency membrane systems. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 445–454, Thessaloniki, Greece, 2007.
- [556] O. Moya-Mesa. Plasma membrane, compartmentation, transport, and imprecisions. In *First brainstorming Workshop on Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004*, 2004.
- [557] N. Murphy and D. Woods. Active membrane systems without charges and using only symmetric elementary division characterize P. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 455–470, Thessaloniki, Greece, 2007.
- [558] Niall Murphy and Damien Woods. A characterisation of NL using membrane systems without charges and dissolution. In Cristian S. Calude, José Félix Costa, Rudolf Freund, Marion Oswald, and Grzegorz Rozenberg, editors, *Proceedings of the 7th international conference on Unconventional Computing*, volume 5204 of *Lecture Notes in Computer Science*, pages 164–176, 2008.
- [559] M. Muskulus. An observation on the sevilla complexity. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity*

- Aspects*), Sevilla (Spain), January 31st - February 2nd, pages 257–266, 2005.
- [560] M. Muskulus and R. Brijder. First steps towards a geometry of computation. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 197–218, 2005.
- [561] Michael Muskulus. Identification of P system models assisted by biochemical databases. In Oscar H. Ibarra and Petr Sosík, editors, *Proceedings of Prague International Workshop on Membrane Computing*, pages 47–49, 2008.
- [562] Michael Muskulus. Applications of page ranking in P systems. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 311–324, 2009.
- [563] Michael Muskulus, Sanne Houweling, Grzegorz Rozenberg, Paolo Cazzaniga Daniela Besozzi and, Dario Pescini, and Robert Brijder. Reaction cycles in membrane systems and molecular dynamics. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 185–208. Fénix Editora, 2006.
- [564] Madhu Mutyam and Kamala Krithivasan. P systems with membrane creation: Universality and efficiency. In Y. Rogozhin M. Margenstern, editor, *Machines, Computations, and Universality: Third International Conference, MCU 2001 Chisinau, Moldavia, May 23-27, 2001, Proceedings*, volume 2055 of *Lecture Notes In Computer Science*, pages 276–287. Springer-Verlag Heidelberg, May 23-27 2001.
- [565] H. Nagda, A. Paun, and A. Rodriguez-Paton. P systems with symport/antiport and time. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 429–442, Leiden, The Netherlands, 2006.
- [566] Turlough Neary. A small universal spiking neural P system. In Erzsébet Csuhaj-Varjú, Rudolf Freund, Marion Oswald, and Kai Salomaa, editors, *International Workshop on Computing with Biomolecules*, pages 65–74, 2008.
- [567] Isabel Nepomuceno, J.A. Nepomuceno, and Francisco José Romero-Campero. A tool for using the SBML format to represent P systems which model biological reaction networks. In *Proceedings of the Third*

*Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th, pages 219–228, 2005.*

- [568] Isabel A. Nepomuceno-Chamorro. A Java simulator for basic transition P systems. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 309–315, Sevilla, Spain, February 2-7 2004.
- [569] V. Nguyen, D. Kearney, and G. Gioiosa. Balancing performance, flexibility and scalability in a parallel computing platform for membrane computing applications. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 471–508, Thessaloniki, Greece, 2007.
- [570] Van Nguyen, David Kearney, and Gianpaolo Gioiosa. An algorithm for non-deterministic object distribution in P systems and its implementation in hardware. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 325–354, 2009.
- [571] Dan V. Nicolau-Jr., Gerardin Solana, Florin Fulga, and Dan V. Nicolau-Sr. A C library for implementing P systems on the electronic computer (Abstract). In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [572] Taishin Yasunobu Nishida. Simulations of photosynthesis by a K-Subset transforming system with membranes. In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [573] Taishin Yasunobu Nishida. An application of P systems: A new algorithm for NP-complete optimization problems. In et. al. N. Callaos, editor, *Proceedings of the 8th World Multi-Conference on Systems, Cybernetics and Informatics, vol. V, 2004*, pages 109–112, 2004.
- [574] Taishin Yasunobu Nishida. An approximate algorithm for NP-complete optimization problems exploiting P systems. In *First brainstorming Workshop on Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004*, 2004.
- [575] T.Y. Nishida. Membrane algorithm: An approximate algorithm for np-complete optimization problems exploiting p systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 26–43, 2005.

- [576] A. Obtulowicz. Fuzzy P systems and fuzzy rule-based decision-making systems. In *First brainstorming Workshop on Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004*, 2004.
- [577] A. Obtulowicz. Relational membrane systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 505–509, 2005.
- [578] A. Obtulowicz. Mathematical (denotational) semantics of some reducts of ambient calculus and brane calculi. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 443–454, Leiden, The Netherlands, 2006.
- [579] A. Obtulowicz. Mathematical (denotational) semantics of some reducts of ambient calculus and brane calculi. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 443–454, Leiden, The Netherlands, 2006.
- [580] A. Obtulowicz. Multigraphical membrane systems: a visual formalism for modeling complex systems in biology and evolving neural networks. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 509–512, Thessaloniki, Greece, 2007.
- [581] A. Obtulowicz. Some mathematical methods and tools for an analysis of harmony-seeking computations. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Riscos-Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 246–262, Sevilla (Spain), January 29th - February 2 2007.
- [582] Adam Obtulowicz. On P systems with active membranes solving integer factorizing problem in a polynomial time. In Cristian Calude, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Multiset Processing: Mathematical, Computer Science, and Molecular Computing Points of View*, volume 2235 of *Lecture Notes in Computer Science*, pages 267–286. Springer-Verlag, 2001.
- [583] Adam Obtulowicz. Probabilistic P systems. In *Pre-Proceedings of Second Workshop on Membrane Computing, Curtea de Arges, Romania, August 2002*.
- [584] Adam Obtulowicz. Mathematical models of uncertainty with a regard to membrane systems. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing*,

Tarragona, February 5-11 2003, pages 241–246, Tarragona, February 5-11 2003.

- [585] Adam Obtulowicz. Probabilistic P systems. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 377–387, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [586] Adam Obtulowicz. General multi-fuzzy sets and fuzzy membrane systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 316–326, Milano, Italy, June 2004.
- [587] Adam Obtulowicz. Gandy’s principle for mechanisms and membrane computing. In *Third Brainstorming Week on Membrane Computing, Sevilla, 2005*, Sevilla, 2005.
- [588] Adam Obtulowicz. Gandy’s principles for mechanisms and membrane computing. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 267–276, 2005.
- [589] Adam Obtulowicz. On an idea of a (possibly) uniform data base for life sciences from molecular biology to cognitive psychology. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 209–212. Fénix Editora, 2006.
- [590] Marion Oswald. Independent agents in a globalized world modelled by tissue p systems. In *Conf. Artificial Life and Robotics*, 2006.
- [591] Marion Oswald and Rudolf Freund. P Automata with membrane channels. In M. Sugisaka and H. Tanaka, editors, *Proceedings of the eighth Int. Symp. on Artificial Life and Robotics*, pages 275–278, Beppu, Japan, 2003.
- [592] V.J. Pakash. On the power of tissue P systems working in the maximal-one mode. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 356–364, Tarragona, July 17-22 2003.
- [593] Linqiang Pan, Artiom Alhazov, and Tseren-Onolt Ishdorj. Further remarks on P systems with active membranes, separation, merging, and release rules. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro

Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 316–324, Sevilla, Spain, February 2-7 2004.

- [594] Linqiang Pan and Tseren-Onolt Ishdorj. P systems with active membranes and separation rules. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 325–341, Sevilla, Spain, February 2-7 2004.
- [595] Linqiang Pan and Carlos Martín-Vide. Solving multidimensional 0-1 Knapsack problem by P systems with input and active membranes. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 342–353, Sevilla, Spain, February 2-7 2004.
- [596] A. Paun and B. Popa. P systems with proteins on membranes and membrane division. In *Proceedings 10th DLT Conf. (invited talk), Santa Barbara, USA, 2006*, volume 4036 of *Lecture Notes in Computer Science*, pages 292–303. Springer, 2006.
- [597] A. Paun and A. Rodriguez-Paton. On flip-flop membrane systems with proteins. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 513–526, Thessaloniki, Greece, 2007.
- [598] Andrei Paun. On P systems with active membranes. In I. Antoniou, Cristian Calude, and M.J. Dinneen, editors, *Unconventional Models of Computation*, pages 187–201, London, February 2000. Springer-Verlag. Contributed paper.
- [599] Andrei Paun. On P systems with global rules. In Natasha Jonoska and N.C. Seeman, editors, *Proc. 7th Intern. Meeting on DNA Based Computers*, pages 43–52, Tampa, Florida, USA, 2001.
- [600] Andrei Paun. P systems with string-objects: Universality results. In *Pre-Proceedings of Workshop on Membrane Computing, Curtea de Arges, Romania, August 2001*.
- [601] Andrei Paun. Membrane systems with symport/antiport. Universality results. In *Pre-Proceedings of Second Workshop on Membrane Computing, Curtea de Arges, Romania, August 2002*.
- [602] Andrei Paun and Gheorghe Paun. Small universal spiking neural P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun,

- Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 213–234. Fénix Editora, 2006.
- [603] Gh. Paun. Spiking neural p systems used as acceptors and transducers. In *CIAA 2007, 12th Conf., Prague, July 2007, LNCS 4783* (J. Holub, J. Zdarek, eds.), Springer, Berlin, 2007, 1–4.
- [604] Gh. Paun. Spiking neural p systems with astrocyte-like control. In *JUCS*, 13, 11 (2007), 1707–1721.
- [605] Gh. Paun. Membrane computing. basic ideas, results, applications. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 1–8, 2005.
- [606] Gh. Paun. Membrane computing: power, efficiency, applications, new computational paradigms. In B. Lowe S. Barry Cooper and L. Torenvliet, editors, *First Conf. on Computability in Europe, CiE2005, Amsterdam, LNCS 3536*, pages 396–407. Springer, 2005.
- [607] Gh. Paun. Languages in membrane computing. some details for spiking neural p systems. In *Proceedings 10th DLT Conf. (invited talk), Santa Barbara, USA, 2006*, volume 4036 of *Lecture Notes in Computer Science*, pages 20–35. Springer, 2006.
- [608] Gh. Paun. Membrane computing and brane calculi (some personal notes). In N. Busi and C. Zandron, editors, *Proceedings MeCBIC 2006*, Venice, 2006.
- [609] Gh. Paun. Twenty six research topics about spiking neural p systems. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 363–280, Sevilla (Spain), January 29th - February 2 2007.
- [610] Gh. Paun and M.J. Perez-Jimenez. Spiking neural p systems. an overview. In *Advancing Artificial Intelligence through Biological Process Applications* (A.B. Porto, A. Pazos, W. Buno, eds.), Idea Group Publ., London, 2008.
- [611] Gheorghe Păun. Computing with membranes: Attacking NP-complete problems. In I. Antoniou, Cristian Calude, and M.J. Dinneen, editors, *Unconventional Models of Computation*, pages 94–115, London, February 2000. Springer-Verlag. Invited paper.

- [612] Gheorghe Păun. From cells to computers: Computing with membranes (P systems). In Rudolf Freund and Alica Kelemenova, editors, *Proc. Intern. Workshop Grammar Systems 2000*, pages 9–40, Bad Ischl, Austria, July 2000.
- [613] Gheorghe Păun. On the generative power of P systems. In Rudolf Freund, editor, *Theorietag 2000. Workshop on New Computing Paradigms*, pages 59–78. TU University Vienna, 2000.
- [614] Gheorghe Păun. Further research topics about P systems. In *Pre-Proceedings of Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2001.
- [615] Gheorghe Păun. Descriptive complexity issues in membrane computing. In *Proc. of DCFS Workshop*, pages 66–77, Budapest, Hungary, 2003.
- [616] Gheorghe Păun. Membrane computing. In Andrzej Lingas and Bengt J. Nilsson, editors, *Fundamentals of Computation Theory 14th International Symposium, FCT 2003, Malmö, Sweden, August 12-15, 2003, Proceedings.*, volume 2751 of *Lecture Notes in Computer Science*, pages 284–295. Springer, 2003.
- [617] Gheorghe Păun. Further open problems in Membrane Computing, Sevilla, Spain, february 2–7 2004. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 354–365, Sevilla, Spain, February 2-7 2004.
- [618] Gheorghe Păun. Grammar systems vs. membrane computing: A preliminary approach. In *Pre-Proceedings of Workshop on Grammar Systems, Computer and Automation Research Institute (SZTAKI) of the Hungarian Academy of Sciences (MTA).*, pages 225–245, Budapest, July 5-9 2004.
- [619] Gheorghe Păun. Introduction to membrane computing. In *First brainstorming Workshop on Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004*, 2004.
- [620] Gheorghe Păun. Learning new computing models from biology: Membrane computing. In *International Conference on Computers and Communications-ICCC 2004, Baile Felix Spa, Oradea, ROMANIA, Oradea, ROMANIA, May 27-29 2004*.
- [621] Gheorghe Păun. Membrane computing. An introduction. In *Pre-Proc. Unconventional Programming Paradigms, UPP04, Le Mont Saint-Michel*, pages 39–48, September 2004.

- [622] Gheorghe Păun. Membrane computing: Power and efficiency (a quick overview). In *THE TENTH INTERNATIONAL MEETING ON DNA COMPUTING (DNA 10)*, Università' di Milano-Bicocca, Milan, Italy, Milan, Italy, June 7-10 2004.
- [623] Gheorghe Păun. Membrane systems: From cells to computers. In *WoLLIC'2004 11th Workshop on Logic, Language, Information and Computation, July 19th to 22nd, 2004, Paris, France*, Paris, France, July 19th to 22nd 2004.
- [624] Gheorghe Păun. Further twenty six open problems in membrane computing. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 249–262, 2005.
- [625] Gheorghe Păun. Further twenty-six open problems in membrane computing. In *Third Brainstorming Week on Membrane Computing, Sevilla, 2005*, Sevilla, 2005.
- [626] Gheorghe Păun. One more universality result for P systems with objects on membranes. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 263–274, 2005.
- [627] Gheorghe Păun. 2006 research topics in membrane computing. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 235–252. Fénix Editora, 2006.
- [628] Gheorghe Păun, Mario J. Pérez-Jiménez, and Agustín Riscos-Núñez. P systems with tables of rules. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 366–379, Sevilla, Spain, February 2-7 2004.
- [629] Gheorghe Păun, Mario J. Pérez-Jiménez, and Agustín Riscos-Núñez. Tissue P systems with cell division. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 380–386, Sevilla, Spain, February 2-7 2004.
- [630] Gheorghe Păun and Gabriel Thierrin. Multiset processing by means of systems of finite state transducers. In *Pre-Proceedings of Workshop on Implementing Automata WIA99*, Potsdam, August 1999.

- [631] Gheorghe Păun and Takashi Yokomori. Membrane computing based on splicing. In E. Winfree and D. Gifford, editors, *Preliminary Proceedings of Fifth International Meeting on DNA Based Computers*, pages 213–227. MIT, June 1999.
- [632] Juan Pazos, Alfonso Rodríguez-Patón, and Andrés Silva. Solving SAT in linear time with a neural-like membrane system. In José Mira and José R. Alvarez, editors, *Artificial Neural Nets. Problem Solving Methods 7th International Work-Conference on Artificial and Natural Neural Networks, IWANN 2003, Maó, Menorca, Spain, June 3-6. Proceedings, Part II.*, volume 2687 of *Lecture Notes in Computer Science*, pages 662–669. Springer, 2003.
- [633] Antonio Pérez-Jiménez, Mario J. Pérez-Jiménez, and Fernando Sancho-Caparrini. Computing a partial mapping by a P system: Design and verification. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 247–260, Tarragona, February 5-11 2003.
- [634] Antonio Pérez-Jiménez, Mario J. Pérez-Jiménez, and Fernando Sancho-Caparrini. Formal verification of a transition P system generating the set  $2^n + n^2 + n | n > 1$ . In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 261–269, Tarragona, February 5-11 2003.
- [635] Mario J. Pérez-Jiménez. An approach to computational complexity in membrane computing. In *First brainstorming Workshop on Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004*, 2004.
- [636] Mario J. Pérez-Jiménez. Complexity classes in membrane computing. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 63–63, Milano, Italy, June 2004.
- [637] Mario J. Pérez-Jiménez and Agustín Riscos-Núñez. A linear-time solution for the Knapsack problem using active membranes. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 326–342, Tarragona, July 17-22 2003.
- [638] Mario J. Pérez-Jiménez and Agustín Riscos-Núñez. A linear-time solution to the Knapsack problem using P systems with active membranes. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22*,

2003, *Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 250–268. Springer, July 2003.

- [639] Mario J. Pérez-Jiménez and Francisco-José Romero-Campero. A CLIPS simulator for recognizer P systems with active membranes. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 387–413, Sevilla, Spain, February 2-7 2004.
- [640] Mario J. Pérez-Jiménez and Francisco-José Romero-Campero. Solving the BINPACKING problem by recognizer P systems with active membranes. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 414–430, Sevilla, Spain, February 2-7 2004.
- [641] Mario J. Pérez-Jiménez and Francisco-José Romero-Campero. Trading polarizations for bi-stable catalysts in P systems with active membranes. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 327–342, Milano, Italy, June 2004.
- [642] Mario J. Pérez-Jiménez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini. Decision P systems and the  $P \neq NP$  conjecture. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [643] Mario J. Pérez-Jiménez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini. Complexity classes in cellular computing with membranes. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 270–278, Tarragona, February 5-11 2003.
- [644] Mario J. Pérez-Jiménez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini. Decision P systems and the  $P \neq NP$  conjecture. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 388–399, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [645] Mario J. Pérez-Jiménez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini. Solving VALIDITY problem by active membranes with input. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 279–290, Tarragona, February 5-11 2003.

- [646] Mario J. Pérez-Jiménez and Fernando Sancho-Caparrini. Verification of non-deterministic transition P systems solving SAT problem. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 291–304, Tarragona, February 5-11 2003.
- [647] Mario Jesús Pérez-Jiménez. Computational complexity aspects of membrane computing: Ideas, results, open problems. In *Proceedings of the ESF Exploratory Workshop on Cellular Computing (Complexity Aspects), Sevilla (Spain), January 31st - February 2nd*, pages 277–292, 2005.
- [648] M.J. Perez-Jimenez. P systems-based modelling of cellular signalling pathways. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 54–73, Leiden, The Netherlands, 2006.
- [649] M.J. Perez-Jimenez. P systems-based modelling of cellular signalling pathways. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 54–73, Leiden, The Netherlands, 2006.
- [650] M.J. Perez-Jimenez. P systems-based modelling of cellular signalling pathways. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 54–73, Leiden, The Netherlands, 2006.
- [651] M.J. Perez-Jimenez and F.J. Romero-Campero. A study of the robustness of the egfr signalling cascade using continuous membrane systems. In *First Intern. Work-Conference on the Interplay between Natural and Artificial Computation, IWINAC 2005*, Las Palmas de Gran Canaria, 2005.
- [652] M.J. Pérez-Jiménez and T. Yokomori. Membrane computing schema based on string insertions. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 281– 298, Sevilla (Spain), January 29th - February 2 2007.
- [653] D. Pescini, D. Besozzi, and G. Mauri. Investigating local evolutions in dynamical probabilistic p systems. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 83–90, 2005.
- [654] Dario Pescini, Daniela Besozzi, Claudio Zandron, and Giancarlo Mauri. Dynamical probabilistic P systems: Definitions and applications. In *Proceedings of the Third Brainstorming Week on Membrane*

*Computing, Sevilla (Spain), January 31st - February 4th*, pages 275–288, 2005.

- [655] Dario Pescini, Paolo Cazzaniga, Claudio Ferretti, and Giancarlo Mauri. First steps towards a wet implementation for  $\tau$ -DPP. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 355–373, 2009.
- [656] Ion Petre and Luigia Petre. Mobile ambients and P systems. In *Workshop on Formal Languages, FCT99, Iasi*, 1999.
- [657] Biljana Petreska and Christof Teuscher. A hardware membrane system. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 343–355, Tarragona, July 17-22 2003.
- [658] Biljana Petreska and Christof Teuscher. A reconfigurable hardware membrane system. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 269–285. Springer, July 2003.
- [659] G. Michele Pinna and Andrea Saba. An event based semantics of p systems. In Gabriel Ciobanu, editor, *Second International Meeting on Membrane Computing and Biologically Inspired Process Calculi*, pages 174–187, 2008.
- [660] V.J. Prakash and Kamala Krithivasan. Simulating boolean circuits with tissue P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 343–359, Milano, Italy, June 2004.
- [661] A. Profir, E. Gutuleac, and E. Boian. Simulation of continuous-time p systems using descriptive rewriting timed petri nets. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 91–94, 2005.
- [662] Aurelia Profir and Elena Boian. P systems of biocomputing systems. In *Pre-Proceedings of Second Workshop on Membrane Computing*, Curtea de Arges, Romania, August 2002.
- [663] Aurelia Profir and Elena Boian. Modeling molecular genetic triggers by means of P systems. In Artiom Alhazov, Carlos Martín-Vide, and

Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 365–386, Tarragona, July 17-22 2003.

- [664] Aurelia Profir, Elena Boian, N. Barbacari, E. Gutuleac, and Cleo Zelinschi. Modelling molecular genetic trigger by means of P transducer. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 360–362, Milano, Italy, June 2004.
- [665] Y. Pu, Y. Yu, and X. Dong. Simulation of biomolecular processes by using stochastic p systems. In *Workshop on High Performance Computing in the Life Sciences*, Ouro Preto, Brasil, October 2006.
- [666] Gheorghe Păun. An introduction to MC, after 10 years, by means of a (partial) glossary. In Gabriel Ciobanu, editor, *Second International Meeting on Membrane Computing and Biologically Inspired Process Calculi*, pages 1–9, 2008.
- [667] Gheorghe Păun and Francisco J. Romero-Campero. Membrane computing as a modeling framework. cellular systems case studies. In Marco Bernardo, Pierpaolo Degano, and Gianluigi Zavattaro, editors, *Formal Methods for Computational Systems Biology*, volume 5016 of *Lecture Notes in Computer Science*, pages 168–214, 2008.
- [668] Z. Qi, R. Rao, G. Xue, and J. You. A new formal model based on p systems for mobile transactions. In *Proc. IEEE Intern. Conf. on Services Computing, SCC2004*, pages 16–22, 2004.
- [669] Zhengwei Qi, Cheng Fu, Dongyu Shi, and Jinyuan You. Specification and execution of P systems with symport/antiport rules using rewriting logic. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 363–371, Milano, Italy, June 2004.
- [670] Zhengwei Qi, Cheng Fu, Dongyu Shi, Jinyuan You, and M. Li. Membrane calculus. A formal method for grid transactions. In *Proceedings of the 3rd International Conference on Grid and Cooperative Computing, GCC 2004*, Wuhan, China, 2004.
- [671] Zhengwei Qi and Jinyuan You. P systems and Petri nets. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Pre-proceedings of the Workshop on Membrane Computing*, pages 387–403., Tarragona, July 17-22 2003.
- [672] Zhengwei Qi, Jinyuan You, and Hongyan Mao. P systems and Petri nets. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing*,

*International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 286–303. Springer, July 2003.

- [673] R. Rama and H. Ramesh. On generating trees by p systems with active membranes. In in G. Ciobanu, Gh. Paun, *Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 95–98, 2005.
- [674] Raghavan Rama. Computing with P systems. In *Pre-Proceedings Workshop on Multiset Processing, Curtea de Arges, Romania, August 2000*.
- [675] H. Ramesh and R. Rama. Rewriting P systems with conditional communication: improved hierarchies. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 527–538, Thessaloniki, Greece, 2007.
- [676] D. Ramirez-Martinez and M.A. Gutiérrez-Naranjo. A software tool for dealing with spiking neural p systems. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 299–314, Sevilla (Spain), January 29th - February 2 2007.
- [677] Elena Rivero-Gil, Miguel A. Gutiérrez-Naranjo, Álvaro Romero-Jiménez, and Agustín Riscos-Núñez. A software tool for generating graphics by means of P systems. In Erzsébet Csuhaj-Varjú, Rudolf Freund, Marion Oswald, and Kai Salomaa, editors, *International Workshop on Computing with Biomolecules*, pages 87–100, 2008.
- [678] Vladimir Rogozhin and Elena Boian. Simulation of mobile ambients by P systems. Part 1. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 304–319. Springer, July 2003.
- [679] Vladimir Rogozhin and Elena Boian. Simulation of mobile ambients by P systems. Part 1. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 404–427, Tarragona, July 17-22 2003.
- [680] Vladimir Rogozhin and Elena Boian. Simulation of mobile ambients by P systems. Part 2. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 431–442, Sevilla, Spain, February 2-7 2004.

- [681] Vladimir Rogozhin and Elena Boian. Simulation of mobile ambients by tissue P systems with a dynamic network of membranes. In *International Conference on Computers and Communications-ICCC 2004, Baile Felix Spa, Oradea, ROMANIA, Oradea, ROMANIA, May 27-29 2004*.
- [682] Y. Rogozhin, A. Alhazov, and R. Freund. Computational power of symport/antiport: History, advances and open problems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria, pages 44–78, 2005*.
- [683] Y. Rogozhin and S. Verlan. On the rule complexity of universal tissue p systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria, pages 510–516, 2005*.
- [684] F.J. Romero-Campero, M. Gheorghe, L. Bianco, D. Pescini, M.J. Perez-Jimenez, and R. Ceterchi. Towards probabilistic model checking on p systems using prism. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7, pages 455–473, Leiden, The Netherlands, 2006*.
- [685] F.J. Romero-Campero, M. Gheorghe, L. Bianco, D. Pescini, M.J. Perez-Jimenez, and R. Ceterchi. Towards probabilistic model checking on p systems using prism. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7, pages 455–473, Leiden, The Netherlands, 2006*.
- [686] Francisco J. Romero-Campero, Hongqing Cao, Miguel Camara, and Natalio Krasnogor. Structure and parameter estimation for cell systems biology models. In Maarten Keijzer, editor, *Proceedings of the 10th annual conference on Genetic and evolutionary computation, pages 331–338, 2008*.
- [687] Francisco J. Romero-Campero, Jamie Twycross, Hongqing Cao, Jonathan Blakes, and Natalio Krasnogor. A multiscale modeling framework based on P systems. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop, volume 5391 of Lecture Notes in Computer Science, pages 64–78, 2009*.
- [688] Francisco J. Romero-Campero, Jamie Twycross, and Natalio Krasnogor Hongqing Cao, Jonathan Blakes. A multiscale modeling framework based on P systems. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop, volume 5391 of Lecture Notes in Computer Science, pages 63–77, 2009*.

- [689] A. Romero-Jimenez, M.A. Gutiérrez-Naranjo, and M.J. Perez-Jimenez. Graphical modelling of higher plants using p systems. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 474–484, Leiden, The Netherlands, 2006.
- [690] Alvaro Romero-Jiménez, Miguel Angel Gutiérrez-Naranjo, and Mario-Jesús Pérez-Jiménez. The growth of branching structures with P systems. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 253–266. Fénix Editora, 2006.
- [691] Alvaro Romero-Jiménez and Mario J. Pérez-Jiménez. Generation of diophantine sets by computing p systems with external output. In Cristian Calude, Michael J. Dinneen, and Ferdinand Peper, editors, *Unconventional Models of Computation: Third International Conference, UMC 2002, Kobe, Japan, October 15-19, 2002. Proceedings*, volume 2509 of *Lecture Notes In Computer Science*, pages 176–190, London, UK, October 15–19 2002. Springer-Verlag Heidelberg.
- [692] Álvaro Romero-Jiménez and Mario J. Pérez-Jiménez. Computing partial recursive functions by transition P systems. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 320–340. Springer, July 2003.
- [693] Alvaro Romero-Jiménez and Mario J. Pérez-Jiménez. Computing partial recursive functions through transition P systems. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 428–444, Tarragona, July 17-22 2003.
- [694] Grzegorz Rozenberg. Selectivity in molecular computing. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 64–64, Milano, Italy, June 2004.
- [695] F. Sancho-Caparrini. A note on complexity measures for probabilistic P systems. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 443–448, Sevilla, Spain, February 2-7 2004.

- [696] D. Sburlan. Modeling the dynamical parallelism of bio-systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 517–529, 2005.
- [697] D. Sburlan. Non-cooperative p systems with priorities characterize pset01. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 530–539, 2005.
- [698] Dragos Sburlan. Clock-free P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 372–383, Milano, Italy, June 2004.
- [699] Dragos Sburlan. From cells to software architecture. A P system outlook of computational design. In *Third Workshop on Mathematical Modelling of Environmental and Life Sciences Problems*, Constanca, 2004.
- [700] Dragos Sburlan. Further results on P systems with promoters/inhibitors. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 289–304, 2005.
- [701] J.M. Sempere and D. Lopez. Identifying p rules from membrane structures with an error-correcting approach. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 485–500, Leiden, The Netherlands, 2006.
- [702] J.M. Sempere and D. Lopez. Characterizing membrane structures through multiset tree automata. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 539–550, Thessaloniki, Greece, 2007.
- [703] J.M. Sempere and D. Lopez. On two families of multiset tree automata. In M.A. Gutiérrez-Naranjo, Gh. Păun, A. Romero-Jiménez, and A. Núñez, editors, *Proceedings of the Fifth Brainstorming Week on Membrane Computing*, pages 315–325, Sevilla (Spain), January 29th - February 2 2007.
- [704] Jose M. Sempere. P systems with external input and learning strategies. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 341–356. Springer, July 2003.
- [705] José M. Sempere. P systems with external input and learning strategies. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun,

- editors, *Preproceedings of the Workshop on Membrane Computing*, pages 445–448, Tarragona, July 17-22 2003.
- [706] José M. Sempere. Covering reductions and degrees in P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 384–391, Milano, Italy, June 2004.
- [707] José M. Sempere. Covering rules in P systems: Some preliminary ideas. In Gheorghe Păun, Agustín Riscos-Núñez, Alvaro Romero-Jiménez, and Fernando Sancho-Caparrini, editors, *Second Brainstorming Week on Membrane Computing, Sevilla, Spain, February 2-7 2004*, pages 449–456, Sevilla, Spain, February 2-7 2004.
- [708] José M. Sempere. Translating multiset tree automata into P systems. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, 2009.
- [709] José M. Sempere and D. López. Recognizing membrane structures with tree automata. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 305–316, 2005.
- [710] Traian Serbanuta, Gheorghe Stefanescu, and Grigore Rosu. Defining and executing P systems with structured data in K. In David Wolfe Corne, Pierluigi Frisco, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing: 9th International Workshop*, volume 5391 of *Lecture Notes in Computer Science*, pages 374–393, 2009.
- [711] S.Hemalatha, K.S.Dersanambika, K.G.Subramanian, and C. Sri Hari Nagore. P systems generating 3d rectangular picture languages. In *in G. Ciobanu, Gh. Paun, Pre-Proc. of First International Workshop on Theory and Application of P Systems, Timisoara, Romania, September 26-27*, pages 69–74, 2005.
- [712] P. Sosik. On evolutionary lineages of membrane systems. In *Pre-Proc. of the sixth Workshop on Membrane Computing, WMC6, Vienna, Austria*, pages 79–93, 2005.
- [713] Petr Sosik. P systems versus register machines: two universality proofs. In *Pre-Proceedings of Second Workshop on Membrane Computing, Curtea de Arges, Romania, August 2002*.
- [714] Petr Sosik. Solving a PSPACE-Complete Problem by P systems with active membranes. In Matteo Cavaliere, Carlos Martín-Vide, and

- Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 305–312, Tarragona, February 5-11 2003.
- [715] Petr Sosik and Rudolf Freund. String rewriting sequential P systems and regulated rewriting. In *Proc. Conf. Developments in Language Theory, Vienna, 2001*.
- [716] Petr Sosik and Rudolf Freund. P systems without priorities are computationally universal. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 400–409, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [717] Petr Sosík and Jirí Matýšek. Membrane computing: when communication is enough. In Cristian Calude, Michael J. Dinneen, and Ferdinand Peper, editors, *Unconventional Models of Computation: Third International Conference, UMC 2002, Kobe, Japan, October 15-19, 2002. Proceedings*, volume 2509 of *Lecture Notes In Computer Science*, pages 264–275, London, UK, October 15–19 2002. Springer-Verlag Heidelberg.
- [718] I. Stamatopoulou, P. Kefalas, and M. Gheorghe. Operas<sub>CC</sub>: An instance of a formal framework for MAS modelling based on population P systems. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 551–566, Thessaloniki, Greece, 2007.
- [719] Ioanna Stamatopoulou, Marian Gheorghe, and Petros Kefalas. Modelling of dynamic configuration of biology-inspired multi-agent systems with communicating X-machines and population P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 392–404, Milano, Italy, June 2004.
- [720] Ioanna Stamatopoulou, Petros Kefalas, George Eleftherakis, and Marian Gheorghe. A modeling language and tool for population P systems. In Panayiotis Bozanis and Elias N. Houstis, editors, *10th Panhellenic Conference on Informatics*, pages 142–152, 2005.
- [721] Ioanna Stamatopoulou, Petros Kefalas, and Marian Gheorghe. OPERAS: A framework for the formal modelling of multi-agent systems and its application to swarm-based systems. In Alexander Artikis, Gregory M. O’Hare, Kostas Stathis, and George Vouros, editors, *Engineering Societies in the Agents World VIII: 8th International Workshop*,

volume 4995 of *Lecture Notes In Artificial Intelligence*, pages 158–174, 2008.

- [722] Gh. Stefan. Membrane computing in connex environment. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 81–98, Thessaloniki, Greece, 2007.
- [723] K.G. Subramanian, M. Geethalakshmi, and P. Helen Chandra. Array rewriting p systems generating rectangular arrays. In *National Conference in Intelligent Optimization Modeling Gandhigram Rural Institute-Deemed University, India, India*, March 2006.
- [724] K.G. Subramanian, S. Hemalatha, and C. Sri Hari Nagore. On image generation by sequential/parallel rewriting p systems. In *Proc. Intern. Conf. on Signal Processing, Communications and Networking, Anna University, Chennai, IEEE - IETE*, pages 70–73, 2007.
- [725] K.G. Subramanian, R. Saravanan, M. Geethalakshmi, P. Helen Chandra, and M. Margenstern. P systems with array objects and array rewriting rules. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 160–167, Wuhan, China, September 2006.
- [726] K.G. Subramanian, R. Saravanan, M. Geethalakshmi, P. Helen Chandra, and M. Margenstern. P systems with array objects and array rewriting rules. In *Proc. Bio-Inspired Computing – Theory and Applications Conf., BIC-TA 2006, Wuhan, China, September 2006, Membrane Computing Section.*, 2006.
- [727] K.G. Subramanian, R. Saravanan, and K. Rangarajan. Array p systems and basic puzzle grammars. In *National Conference in Intelligent Optimization Modeling Gandhigram Rural Institute-Deemed University, India, India*, March 2006.
- [728] Y. Suzuki. An attempt to analyze the dynamics of abstract rewriting systems on multisets. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 501–506, Leiden, The Netherlands, 2006.
- [729] Y. Suzuki. Dynamics of an abstract chemical system with few molecules. In M. Sugisaka and H. Tanaka, editors, *Proceedings of the 12th Int. Symposium on Artificial Life and Robotics*, pages 506–508, Beppu, Oita, Japan, Jan 25-27 2007.
- [730] Yasuhiro Suzuki, Yoshi Fujiwara, Hiroshi Tanaka, and Junji Takabayashi. Artificial life applications of a class of P systems: Abstract

- rewriting systems on multisets. In Cristian Calude, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Multiset Processing: Mathematical, Computer Science, and Molecular Computing Points of View*, volume 2235 of *Lecture Notes in Computer Science*, pages 299–346, Berlin, 2001. Springer-Verlag.
- [731] Yasuhiro Suzuki, S. Ogishima, and Hiroshi Tanaka. Modeling the p53 signaling network by using P systems. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 449–454, Tarragona, July 17-22 2003.
- [732] Yasuhiro Suzuki, Junji Takabayashi, and Hiroshi Tanaka. Adaptive behavior in a tritrophic interactions consisting of plants, herbivores and carnivores. In *The Sixth International Conference on the Simulation of Adaptive Behavior (SAB2000) September 11-15 2000, Paris, France*, September 2000.
- [733] Yasuhiro Suzuki and Hiroshi Tanaka. Artificial life and P systems. In *Pre-Proceedings Workshop on Multiset Processing*, Curtea de Arges, Romania, August 2000.
- [734] Yasuhiro Suzuki and Hiroshi Tanaka. Computational living systems based on an abstract chemical system. In *Proc. CEC2000*, pages 1369–1376. IEEE, 2000.
- [735] Yasuhiro Suzuki and Hiroshi Tanaka. A new molecular computing model, artificial cell systems. In *Genetic and Evolutionary Computation Conf. GECCO*, pages 833–840. Morgan Kaufman, 2000.
- [736] Yasuhiro Suzuki and Hiroshi Tanaka. Abstract rewriting systems on multisets and their application for modelling complex behaviours. In Matteo Cavaliere, Carlos Martín-Vide, and Gheorghe Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11 2003*, pages 313–331, Tarragona, February 5-11 2003.
- [737] A. Syropoulos. Fuzzifying P systems. In *First brainstorming Workshop on Uncertainty in Membrane Computing, Palma de Mallorca, Spain, November 2004*, 2004.
- [738] A. Syropoulos. On P systems and distributed computing. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 405–413, Milano, Italy, June 2004.
- [739] A. Syropoulos, Stratos Douranis, and Kostantinos T. Sotiriades. Computing recursive functions with P systems. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 414–421, Milano, Italy, June 2004.

- [740] Apostolos Syropoulos, Eleftherios G. Mamatras, Peter C. Allilomes, and Konstantinos T. Sotiriades. A distributed simulation of transition P systems. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 357–368. Springer, July 2003.
- [741] Apostolos Syropoulos, Eleftherios G. Mamatras, Peter C. Allilomes, and Konstantinos T. Sotiriades. A distributed simulation of transition P systems. In Carlos Martín-Vide, Giancarlo Mauri, Grzegorz Rozenberg, Gheorghe Păun, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes In Computer Science*, pages 357–368. Springer-Verlag Heidelberg, 2004.
- [742] A. Tejedor, L. Fernandez, F. Arroyo, and G. Bravo. An architecture for attacking the bottleneck communication in P systems. In M. Sugisaka and H. Tanaka, editors, *Proceedings of the 12th Int. Symposium on Artificial Life and Robotics*, pages 500–505, Beppu, Oita, Japan, Jan 25-27 2007.
- [743] J.A. Tejedor, L. Fernandez, F. Arroyo, and S. Gomez. Algorithm of rules applications based on competitiveness of evolution rules. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 567–580, Thessaloniki, Greece, 2007.
- [744] G. Terrazas, N. Krasnogor, M. Gheorghe, F. Bernardini, S. Diggle, and M. Cámara. An environment aware p system model of quorum sensing, new computational paradigms. In B. Lowe S. Barry Cooper and L. Torenvliet, editors, *First Conf. on Computability in Europe, CiE2005, Amsterdam*, LNCS 3536, pages 479–485. Springer, 2005.
- [745] Christof Teuscher. Chemical blending with particles, cells and artificial chemistries. In *Pre-Proc. Unconventional Programming Paradigms, UPP04, Le Mont Saint-Michel*, pages 29–37, September 2004.
- [746] Jamie Twycross, Francisco J. Romero-Campero, Malcolm Bennett, Miguel Cámara, and Natalio Krasnogor. Modular assembly of cell systems biology models using P systems. In Oscar H. Ibarra and Petr Sosik, editors, *Proceedings of Prague International Workshop on Membrane Computing*, pages 51–62, 2008.
- [747] K. Ueda and N. Nato. LMNtal: A language model with links and membranes. In *Pre-proceedings of the Fifth Workshop on Membrane*

*Computing (WMC5), Milano, Italy, June 2004*, pages 65–80, Milano, Italy, June 2004.

- [748] M. Umeki and Y. Suzuki. Direct simulation of the oregonator model by using a class of P systems. In G. Eleftherakis and Gh. Paun P. Kefalas, editors, *Pre-proceedings of Membrane Computing, International Workshop - WMC8*, pages 581–588, Thessaloniki, Greece, 2007.
- [749] Roxana Vasilco, Alina Popescu, Roxandra Chiurtu, and Dan Dascalu. The architecture for living structures - a possible basis for molecular computing. In Gheorghe Păun, Grzegorz Rozenberg, Arto Salomaa, and Claudio Zandron, editors, *Membrane Computing: International Workshop, WMC-CdeA 2002, Curtea de Arges, Romania, August 19-23, 2002. Revised Papers.*, volume 2597 of *Lecture Notes in Computer Science*, pages 410–421, Curtea de Arges, Romania, July 2003. Springer-Verlag, Berlin.
- [750] György Vaszil. On the size of P systems with minimal symport/antiport. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5), Milano, Italy, June 2004*, pages 422–431, Milano, Italy, June 2004.
- [751] György Vaszil. On a class of P automata as a machine model for languages over infinite alphabets. In *Proceedings of the Third Brainstorming Week on Membrane Computing, Sevilla (Spain), January 31st - February 4th*, pages 317–326, 2005.
- [752] György Vaszil. A class of P automata for characterizing context-free languages. In Miguel Angel Gutiérrez-Naranjo, Gheorghe Paun, Agustín Riscos-Núñez, and Francisco José Romero-Campero, editors, *Fourth Brainstorming Week on Membrane Computing, Sevilla, January 30 - February 3, 2006. Volume II*, pages 267–276. Fénix Editora, 2006.
- [753] S. Verlan, F. Bernardini, M. Gheorghe, and M. Margenstern. On communication in tissue p systems: Conditional uniport. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 507–521, Leiden, The Netherlands, 2006.
- [754] Sergey Verlan. About splicing P systems with immediate communication and non-extended splicing P Systems. In Carlos Martín-Vide, Giancarlo Mauri, Gheorghe Păun, Grzegorz Rozenberg, and Arto Salomaa, editors, *Membrane Computing, International Workshop, WMC 2003, Tarragona, Spain, July, 17-22, 2003, Revised Papers*, volume 2933 of *Lecture Notes in Computer Science*, pages 369–382. Springer, July 2003.

- [755] Sergey Verlan. About splicing P systems with immediate communication and non-extended splicing P Systems. In Artiom Alhazov, Carlos Martín-Vide, and Gheorghe Păun, editors, *Preproceedings of the Workshop on Membrane Computing*, pages 461–473., Tarragona, July 17-22 2003.
- [756] Sergey Verlan. Communicating distributed H Systems with alternating filters and tissue P systems with minimal symport/antiport. In *EMCC Workshop*, Vienna, November 2003.
- [757] C. Versari. Encoding catalytic p systems in  $\pi@$ . In N. Busi and C. Zandron, editors, *Proceedings MeCBIC 2006*, Venice, 2006.
- [758] A. Vitale and G. Mauri. Communication via mobile vesicles in brane calculi. In N. Busi and C. Zandron, editors, *Proceedings MeCBIC 2006*, Venice, 2006.
- [759] Jiri Wiedermann. Coupling computational and non-computational processes: Minimal artificial life. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5)*, Milano, Italy, June 2004, pages 432–445, Milano, Italy, June 2004.
- [760] Maurice Margenstern with L. Colson, Natasha Jonoska, and Gheorghe Păun. About P systems and  $\lambda$ -Calculus. In *Pre-proceedings of the Fifth Workshop on Membrane Computing (WMC5)*, Milano, Italy, June 2004, pages 44–62, Milano, Italy, June 2004.
- [761] Xian Xu. Tissue p systems with parallel rules on channels. In *Pre-proceedings of International Conference on Bio-Inspired Computing - Theory and Applications, BIC-TA 2006, Membrane Computing Section*, pages 168–177, Wuhan, China, September 2006.
- [762] Xian Xu. Tissue p systems with parallel rules on channels. In *Proc. Bio-Inspired Computing – Theory and Applications Conf., BIC-TA 2006, Wuhan, China, September 2006, Membrane Computing Section.*, 2006.
- [763] Linmin Yang, Yong Wang, and Zhe Dang. Automata on multisets of communicating objects. In Cristian S. Calude, José Félix Costa, Rudolf Freund, Marion Oswald, and Grzegorz Rozenberg, editors, *Proceedings of the 7th international conference on Unconventional Computing*, volume 5204 of *Lecture Notes in Computer Science*, pages 242–257, 2008.
- [764] D. Zaharie and G. Ciobanu. Distributed evolutionary algorithms inspired by membranes in solving continuous optimization problems. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 522– 537, Leiden, The Netherlands, 2006.

- [765] D. Zaharie and G. Ciobanu. Distributed evolutionary algorithms inspired by membranes in solving continuous optimization problems. In H.J. Hoogeboom, Gh. Paun, and G. Rozenberg, editors, *Pre-proceedings of Membrane Computing, International Workshop, WMC7*, pages 522– 537, Leiden, The Netherlands, 2006.
- [766] Claudio Zandron, Claudio Ferretti, and Giancarlo Mauri. Solving NP-complete problems using P systems with active membranes. In I. Antoniou, Cristian Calude, and M.J. Dinneen, editors, *Unconventional Models of Computation*, pages 289–301, London, February 2000. Springer-Verlag. Contributed paper.
- [767] Claudio Zandron, Claudio Ferretti, and Giancarlo Mauri. Two normal forms for rewriting P systems. In Maurice Margenstern and Yurii Rogozhin, editors, *Machines, Computations, and Universality. Third International Conference, MCU 2001 Chisinau, Moldova, May 23-27, 2001. Proceedings.*, volume 2055 of *Lecture Notes in Computer Science*, pages 153–164, Chisinau, Moldova, 2001. Springer-Verlag.
- [768] Claudio Zandron, Giancarlo Mauri, and Claudio Ferretti. Universality and normal forms on membrane systems. In Rudolf Freund and Alica Kelemenova, editors, *Proc. Intern. Workshop Grammar Systems 2000*, pages 61–74, Bad Ischl, Austria, July 2000.
- [769] Xingyi Zhang, Yun Jiang, and Linqiang Pan. Small universal spiking neural P systems with exhaustive use of rules. In *Proceedings of the Third International Conference on Bio-Inspired Computing: Theories and Applications*, pages 117–127, 2008.