

PUBLICATIONS of Giandomenico Spezzano

Books

1. G. Spezzano, D. Talia, *Calcolo Parallelo, Automi Cellulari e Modelli per Sistemi Complessi*, FrancoAngeli, Milano, 1999.
2. Di Gregorio S., Spezzano G. (Eds.), *Automi Cellulari per la Ricerca e per l'Industria*, ENEA Serie Atti e Simposi, Roma, 1994.
3. Cannataro M., G. Spezzano, D. Talia, *Programmazione Logica e Architetture Parallele*, FrancoAngeli, Milano, 1993.

Papers in Journals

4. A. Forestiero, C. Pizzuti, G. Spezzano, "A Single Pass Algorithm for Clustering Evolving Data Streams based on Swarm Intelligence", *Data Mining and Knowledge Discovery*, Springer, (to appear) 2011.
5. G. Folino, C. Pizzuti, G. Spezzano, "An Ensemble-based Evolutionary Framework for coping with Distributed Intrusion Detection", *Genetic Programming and Evolvable Machines*, Special Issue on Parallel and Distributed Evolutionary Algorithms, Springer Netherlands, vol. 11, n. 2, pp. 131-146, 2010.
6. G. Folino, A. Forestiero, G. Papuzzo, G. Spezzano, "A Grid Portal for Solving Geoscience Problems using Distributed Knowledge Discovery Services", *FGCS – The International Journal of Grid Computing: Theory, Methods and Applications*, vol. 26, Issue 1, Pages 87-96, 2010.
7. G. Folino, A. Forestiero, G. Spezzano, "An Adaptive Flocking Algorithm for Performing Approximate Clustering", *Information Sciences*, Elsevier Science Publishers, vol. 179, n. 18, pp. 3059-3078. August 2009.
8. Forestiero, C. Mastroianni, G. Spezzano, "So-Grid : A Self-Organizing Grid Featuring Bio-Inspired Algorithms", *ACM Transactions on Autonomous and Adaptive Systems*, vol.3, n. 2, pp. May 2008.
9. G. Folino, C. Pizzuti, G. Spezzano "Training Distributed GP Ensemble with a Selective Algorithm based on Clustering and Pruning for Pattern Classification", *IEEE Transactions on Evolutionary Computation*, vol.12, n. 4, pp. 458-468, 2008.
10. A Forestiero A., Mastroianni C., G. Papuzzo, Spezzano G., "Towards a Self-Structured Grid: An Ant-Inspired P2P Algorithm", *Transactions on Computational Systems Biology (TCSB) X*, LNB I 5410, pp. 1-19, Springer Verlag, Berlin, 2008.
11. A. Forestiero, C. Mastroianni, G. Spezzano, "Reorganization and Discovery of Grid Information with Epidemic Tuning", *FGCS – The International Journal of Grid Computing: Theory, Methods and Applications*, Elsevier Science Publishers, vol. 24, n. 8, pp. 788—797, October 2008.
12. A. Forestiero, C. Mastroianni and G. Spezzano "Building a Peer-to-Peer Information System in Grids via Self-Organizing Agents", *Journal of Grid Computing*, vol. 6, n. 2, pp. 125-140, Springer Netherlands, 2008.
13. A. Forestiero, C. Mastroianni, G. Spezzano, "QoS-based Dissemination of Resources in Grids" *FGCS – The International Journal of Grid Computing: Theory, Methods and Applications*, Elsevier Science Publishers, Vol 24, n.3, pp. 235-244, 2008.

14. A. Forestiero, C. Mastroianni and G. Spezzano "A Decentralized Ant-Inspired Approach for Resource Management and Discovery in Grids" In International Journal on Multi-agent and Grid System, Vol. 3, n. 1, pp. 43--63, IOS Press, 2007.
15. G. Folino, G. Spezzano, "An Autonomous Tool for Building Self-Organizing Grid-enabled Applications", FGCS – The International Journal of Grid Computing: Theory, Methods and Applications, Elsevier Science Publishers, vol.23, n.5, pp. 671-679, 2007.
16. G. Folino, C. Pizzuti, G. Spezzano, "GP ensembles for Large Scale Data Classification", IEEE Transactions on Evolutionary Computation, vol. 10, n. 5, pp. 604- 616, 2006.
17. A. Forestiero, R. Giordanelli, C. Mastroianni, G. Spezzano "Discovering Categorized Resources in Grids by self-organizing agents" In International Transactions on Systems Science and Applications Xiaglow Institute Publishing, Vol. 2, n. 2, pp. 111-122, 2006 .
18. G. Folino, G. Mendicino, A. Senatore, G. Spezzano, S. Straface "A Model Based on Cellular Automata for the Parallel Simulation of 3D Unsaturated Flow", Parallel Computing, North-Holland, vol. 32, n. 5-6, pp. 357-376, 2006.
19. Mendicino, G., A. Senatore, G. Spezzano, and S. Straface, Three-dimensional unsaturated flow modeling using cellular automata, Water Resources Research, American Geophysical Union (AGU), vol.42, n. 11, 2006.
20. G. Folino, A. Forestiero and G. Spezzano "A Jxta based asynchronous Peer-to-Peer Implementation of Genetic Programming", Journal of Software, Academy Publisher, Vol. 1, n. 2, pp. 12-23, 2006.
21. G. Folino, A. Forestiero, G. Papuzzo and G. Spezzano "MOSE' : a Grid-enabled Software Platform to Solve Geoprocessing Problems, in Il Nuovo Cimento, vol. 28 C, n. 2, pp.225-235, 2005.
22. G. Folino, A. Forestiero, G. Spezzano "Decentralized Clustering through a Swarm of Autonomous Agents", WSEAS Transactions on Systems, Issue 2, vol.3, 2004.
23. Dattilo G., Spezzano G., "Simulation of a Cellular Landslide Model with CAMELOT on High Performance Computers", Parallel Computing, North Holland, vol. 29, n. 10, pp. 1403-1418, 2003.
24. Folino G., Pizzuti C., G. Spezzano, "A Scalable Tool for the Development of Parallel Genetic Programming Applications", IEEE Transactions on Evolutionary Computation, vol. 7, n. 1, pp. 37-53, Feb. 2003.
25. Folino G., Pizzuti C., Spezzano G., "Parallel Hybrid Method for SAT that Couples Genetic Algorithms and Local Search" IEEE Transactions on Evolutionary Computation, vol.5, no. 4, pp. 323-334, August 2001.
26. Spezzano G., Talia D., "CAMELOT: A Parallel Cellular Environment for Modelling Complexity", AI*IA Notizie, anno XIV, no 2, pp. 9-15, Giugno 2001.
27. Spezzano G., Talia D., "Programming Cellular Automata for Computational Science on Parallel Computers", Future Generation Computer Systems, North-Holland, Amsterdam, vol. 16, n. 2-3, pp. 203-216, 1999.
28. Spezzano G., Talia D., "The CARPET Programming Environment for Solving Scientific Problems on Parallel Computers " Parallel and Distributed Computing Practices, NOVA Science Publishers, vol. 1, n. 3, pp. 49-61, 1998.
29. Spezzano G., Talia D., "Designing Parallel Models of Soil Contamination by the Carpet Language", Future Generation Computer Systems, North-Holland, Amsterdam, vol. 13, n. 4-5, pp. 291-302, 1998.

30. Di Gregorio S., Rongo R., Spataro W., Spezzano G., Talia D., “High Performance Scientific Computing on a Parallel Cellular Environment”, *Future Generation Computer Systems*, North-Holland, Amsterdam, vol. 12, n.5, pp. 357-369, 1997.
31. Di Gregorio S., Nicoletta F., Rongo R., Siciliano C., Spezzano G., Sorriso-Valvo M., Talia D. “Simulazioni di Frane con Automi Cellulari”, *Computazione Evolutiva*, Edizioni Infomedica, vol. 1, n° 1, 1996.
32. Spezzano G., Talia D., Di Gregorio S., Rongo R., Spataro W., “A Parallel Cellular Tool for Interactive Modeling and Simulation”, *IEEE Computational Science & Engineering*, vol. 3, n° 3, pp.33-43, 1996.
33. Cannataro M., Di Gregorio S., Rongo R., Spataro W., Spezzano G., Talia D., “A Parallel Cellular Automata Environment on Multicomputers for Computational Science”, *Parallel Computing*, North-Holland, vol. 21, n. 5, pp. 803-824, 1995.
34. Cannataro M., Sergeyev Ya.D., Spezzano G., Talia D., “PNS: A Dynamic Mapping Strategy for Massively Parallel Computers”, *Computers and Artificial Intelligence*, vol. 13, n. 5, pp. 477-494, 1994.
35. Cannataro M., Spezzano G., Talia D., “Un Algoritmo di Routing Esente da Deadlock per Sistemi Paralleli”, *Rivista di Informatica*, Masson, vol. XXIII, n. 1, pp. 31-48, 1993.
36. Conforti D., Grandinetti L., Musmanno R., Cannataro M., Spezzano G., Talia D. “A Model of Efficient Asynchronous Parallel Algorithms on Multicomputer Systems”, *Parallel Computing*, North-Holland, Amsterdam, vol. 18, n. 1, pp. 31-45, 1992.
37. Cannataro M., E. Gallizzi, Spezzano G., Talia D., “Design, Implementation and Evaluation of a Deadlock-Free Routing Algorithm for Concurrent Computers”, *Concurrency: Practice and Experience*, J. Wiley & Sons, vol. 4, n. 2, pp. 143-161, 1992.
38. Cannataro M., Spezzano G., Talia D., “High Level Communication Mechanisms for Distributed Parallel Computers from an Adaptive Message Routing”, *Future Generation Computer Systems*, North-Holland, Amsterdam, vol. 8, n. 1-3, pp. 253-255, 1992.
39. Cannataro M., Spezzano G., Talia D., “A Parallel Logic System on a Multicomputer Architecture”, *Future Generation Computer Systems*, North-Holland, Amsterdam, vol. 6, n. 4, pp. 317-331, 1991.
40. Spezzano G., Talia D., Vanneschi M., “A Concurrent Programming Support for Distributed Systems”, *Computing Systems*, Univ. of California Press, Berkeley, vol. 3, n. 3, pp. 423-447, 1990.

Book Chapters

41. Papuzzo G., Spezzano G. “Processing Applications Composed of Web/Grid Services by Distributed Autonomic and Self-organizing Workflow Engines” in *Parallel Computing: From Multicores and GPU's to Petascale*, B. Chapman, F. Desprez, G.R. Joubert, A. Lichnewsky, F. Peters and T. Priol (Eds.), *Advances in Parallel Computing*, IOS Press, vol.19, pp. 195-204, April 2010.
42. A. Forestiero, C. Mastroianni and G. Spezzano, “Spatial Sorting of Binary Metadata Documents via Nature-Inspired Agents in Grids” in *Nature Inspired Cooperative Strategies for Optimization (NICSO 2007)*, Book Series Studies in Computational Intelligence, Springer Berlin / Heidelberg, Volume 129, pp.63-72, 2008.
43. Forestiero A., Mastroianni C., Pupo F., Spezzano G., “Evaluating a Bio-Inspired Approach for the Design of a Grid Information System: the SO-Grid Portal”, in *Advancing Artificial Intelligence through Biological Process Applications*, a book edited by Ana B. Porto, Alejandro Pazos, University of A Coruña, Spain and Washington Buño, Cajal Institute (CSIC), 2008.

44. Forestiero A., Mastroianni C., Spezzano G., “ A Multi-agent Approach for the Construction of a Peer-to-Peer Information Service in Grids”, in *Self-Organization and Autonomic Informatics*, H. Czup, R. Unland, C. Brancki, H. Tianfield (Eds.), Frontiers in Artificial Intelligence and Applications, IOS Press, pp. 220-236, 2005.
45. F. Fernández, G. Spezzano, M. Tomassini, L. Vanneschi, ”Parallel Genetic Programming”, Chapter 6, in *Parallel Metaheuristics: A New Class of Algorithms*, Edited by E. Alba, Wiley, pp. 127-153, 2005.
46. G. Folino, A. Forestiero, G. Spezzano “Swarming Agents for Decentralized Clustering in Spatial Data”, in Handbook of Bioinspired Algorithms and Applications, S. Olariu, A. Zomaya (eds.), Boca Raton, FL, USA, Chapman & Hall/CRC, chapt. 22, pp. 341-358, 2005.
47. G. Spezzano, D. Talia, "Experiences Using High-Level Programming for Parallel Cellular Computation", in *High Performance Computing Systems and Applications*, A. Pollard et al. (Eds.), chapter 51, Kluwer Academic Publishers, pp. 515-528, 2000.
48. Cannataro M., Spezzano G., Talia D., "Logic Program Execution on Distributed Memory Parallel Computers", in *Parallel Computing on Distributed Memory Multiprocessors*, F. Ozguner and F. Ercal, (Eds.), NATO ASI Series F, Springer-Verlag, Berlin, vol. 103, pp. 205-216, 1993.
49. Cannataro M., Spezzano G., Talia D., "PALM : A Logic Programming System on a Highly Parallel Architecture", in *VLSI for Neural Networks and Artificial Intelligence*, J.G. Delgado-Frias and W. R. Moore (Eds), Plenum, New York, pp. 255-265, 1994.
50. Cannataro M., Spezzano G., Talia D., "A Multi-Transputer Architecture for a Parallel Logic Machine", in *VLSI for Artificial Intelligence and Neural Networks*, J.G. Delgado Frias and W. R. Moore (Eds.), Plenum, New York, pp. 165-174, 1991.

Papers in Conference Proceedings

51. G. Papuzzo, G. Spezzano, “An Autonomic Management System for Choreography-based Workflows on Grids and Clouds”, Intern. Conference on Parallel Computing (ParCo 2011) Gent, Belgium from 30 August - 2 September 2011.
52. G. Papuzzo, G. Spezzano, “Autonomic Management of Workflows on Hybrid Grid-Cloud Infrastructure”, 7th International Conference on Network and Service Management (CNSM 2011), 24-28 October, Paris 2011.
53. G. Spezzano, ”Local and Regional Interactions for Programming Discrete Models of Complex Systems, Proc. of 2nd summer solstice intl. conf. on discrete models of complex systems (SOLSTICE 2010), Nancy France, 2010.
54. C. Pizzuti, G. Spezzano, “ Using Self-Similarity to Adapt Evolutionary Ensembles for the Distributed Classification of Data Streams”, Proc. of the International Conference on Evolutionary Computation (ICEC 2010), pp. 176-181, 2010.
55. A. Forestiero, C. Mastroianni, G. Papuzzo, G. Spezzano “A Proximity-based Self-Organizing Framework for Service Composition and Discovery”, in Proc. of 10th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID’10), 2010.
56. G. Papuzzo, G. Spezzano, “ Processing Applications Composed of Web/Grid Services by Distributed Autonomic and Self-organizing Workflow Engines, ParCo’09 1-4 September 2009, École Normale Supérieure de Lyon, Lyon, France, 2009.
57. A. Forestiero, C. Pizzuti, G. Spezzano, ”Flock Stream: a Bio-inspired Algorithm for Clustering Evolving Data Streams”, Proceedings of ICTAI’09, Proc. of the 21st International Conference on Tools with Artificial Intelligence (ICTAI’09), Newark, New Jersey, USA, 2009.

58. G. Folino, A. Forestiero, G. Spezzano, "Distributed Anytime Clustering using Biologically Inspired Systems", Proc. of the IEEE International Conference on Adaptive and Intelligent Systems ICAIS'09, pp. 120-125, Klagenfurt – Austria, 2009.
59. G. Folino, G. Papuzzo, G. Spezzano, "A Bio-Inspired Adaptive Framework for Self-Managing Service-based Workflows in a Grid Environment", International Conference on Metaheuristics and Nature Inspired Computing (Meta'08), Hammamet Tunisia, 2008.
60. A. Forestiero, C. Mastroianni, G. Spezzano, "Dissemination of Information with Fair Load Distribution in Self-Organizing Grids" Sixth International Conference on Ant Colony and Swarm Intelligence (ANTS'2008), LNCS vol. 5217, pp. 291-298, Springer Verlag 2008.
61. A. Forestiero, C. Mastroianni, G. Spezzano, "Spatial Sorting of Binary Metadata Documents via Nature-Inspired Agents in Grids, NIC SO 2007 - 2nd International Workshop on Nature Inspired Cooperative Strategies for Optimization, Acireale (CT), Italy, November 2007.
62. Forestiero A., Mastroianni C., Spezzano G., "Antares: An Ant-Inspired P2P Information System for a Self-Structured Grid", BIONETICS 2007 - 2nd International Conference on Bio-Inspired Models of Network, Information, and Computing Systems, Budapest, Hungary, December 2007.
63. G. Folino, C. Pizzuti, G. Spezzano "An Adaptive Distributed Ensemble Approach to Mine Concept-Drifting Data Streams", Proc. of the IEEE 19th International Conference on Tools with Artificial Intelligence (ICTAI), IEEE Computer society Press, pp. 183-187, 2007.
64. G. Folino, A. Forestiero, G. Spezzano, "A P2P-based Flocking Algorithm for Distributed Clustering using Small World Structure", Proc. of the 7th WSEAS International Conference on Applied Informatics and Communications (AIC'2007), pp. 63-68, Athens, Greece, 2007.
65. G. Folino, C. Pizzuti, G. Spezzano "Using Self-Similarity to Dynamically Adapt GP Ensembles for Distributed Data Streams", Proc. of the Workshop Italiano di Vita Artificiale e Computazione Evolutiva (WIWACE 2007), Baia Samuele, Sampieri (Ragusa), 2007.
66. Forestiero A., Mastroianni C., G. Spezzano "Multiagent and Bio-inspired Information System for Self-Organizing Grids", Proc. of the Workshop Italiano di Vita Artificiale e Computazione Evolutiva (WIWACE 2007), Baia Samuele, Sampieri (Ragusa), 2007.
67. G. Folino, C. Pizzuti, G. Spezzano "StreamGP: Tracking Evolving GP Ensembles in Distributed Data Streams using Fractal Dimension" Proc. of the GEC CO'07 Genetic and Evolutionary Computation Conference, ACM Press, University College London, UK, 2007.
68. Folino G., Forestiero A., Papuzzo G., Spezzano G., Content-based mining for solving geoprocessing problems on grids, Proceedings of the HPDC 2007 Conference & Co-Located Workshops, ACM Press, Monterey, California, USA, pp. 65-72, June 2007.
69. Forestiero A., Mastroianni C., Spezzano G. "A Bio-Inspired Protocol for Resource Dissemination in Grids with Epidemic Control", Proc. of Advances in Grid and Pervasive Computing, C. Cérin and K. Ching Li (Eds.), Paris, pp. 716-723, LNCS 4459, Springer Verlag 2007.
70. G. Folino, C. Pizzuti, G. Spezzano, "Mining Evolving Data Streams using Fractal GP Ensembles", Proc. of the 10th European Conference on Genetic Programming, EUROGP07, Valencia, Spain, pp. 160-169, LNCS vol. 4445, Springer Verlag. 2007.
71. A. Augimeri, G. Folino, A. Forestiero, G. Spezzano, "A multidimensional flocking algorithm for clustering spatial data, Proceeding of the Workshop dagli Oggetti agli Agenti (WOA'06)-Sistemi GRID, Peer-to-peer e Self-*, Catania, 26/27 Settembre 2006.
72. G. Folino, C. Pizzuti, G. Spezzano, "An Evolutionary Ensemble Approach for Distributed Intrusion Detection", in GSICE 06: Seconda Giornata di Studio Italiana sul Calcolo Evoluzionistico, Siena, 15 settembre 2006.

73. G. Folino, C. Pizzuti, G. Spezzano, "Improving Cooperative GP Ensemble with Clustering and Pruning for Pattern Classification" *Proc. of the GECCO'06 Genetic and Evolutionary Computation Conference*, ACM Press, Seattle, WA, USA, pp. 791-798, 2006.
74. Forestiero A., Mastroianni C., Spezzano G., "Agent-based Logical Organization of Resources in GRIDS", Workshop on the use of P2P, Grid and Agents for the development of Content Distribution Networks (UPGRADE-CDN), IEEE Computer Society Press, Paris, France, 2006.
75. Forestiero A., Mastroianni C., Spezzano G., "An Agent-based Semi-Informed Protocol for Resource Discovery in Grids", *Proc. of International Conference on Computational Science IC CS06*, pp. 1047-1054, Part IV, LNCS vol.3994, Springer Verlag 2006.
76. Folino G., Spezzano G., "P-CAGE: An Environment for Evolutionary Computation in Peer-to-Peer Systems" *Proc. of the 9th European Conference on Genetic Programming, EUROGP06*, Budapest, Hungary, pp. 341-350, LNCS vol. 3905, Springer Verlag 2006.
77. G. Folino, A. Forestiero, G. Spezzano, "Swarm-based distributed clustering in Peer-to-Peer Systems" in *7th International Conference on Artificial Evolution (EA'05)*, pp. 37-48, LNCS vol. 3871, Springer Verlag 2006.
78. Mendicino G., Senatore A., Spezzano G., Straface S., "Autom i cellulari m acroscopici per la simulazione del moto tridimensionale in mezzi porosi non saturi" – "Macroscopic cellular automata for the simulation of three-dimensional flow in unsaturated porous media", *Atti XXX Convegno di Idraulica e Costruzioni Idrauliche*, Roma, 10-15 September, 2006.
79. G. Folino, C. Pizzuti, G. Spezzano "GP Ensembles for Distributed Intrusion Detection Systems" in *3rd International Conference on Advances in Pattern Recognition ICAPR'2005*, pp. 54-62, LNCS vol. 3686 Springer, 2005.
80. G. Folino, C. Pizzuti, G. Spezzano "GP Ensembles for improving multi-class prediction problems" *AI*IA Workshop on Evolutionary Computation, GSIC E 2005*, 9th Congress of the Italian Association for Artificial Intelligence, 20 September 2005, University of Milano-Bicocca, Italy.
81. Folino G., Spezzano G. "An Autonomic Middleware for Grid-enabled Self-Organizing Applications" in *Proc. of the International Conference on Parallel and Distributed Computing and Networks PDCS 2005*, pp.258-263, Innsbruck 2005.
82. Folino G., Spezzano G. "CamelotGrid: A Grid-based PSE for Autonomic Cellular Application", *Proc. of IEEE 13th Euromicro Workshop on Parallel, Distributed and Network-based Processing, PDP 2005*, IEEE Computer Society, pp. 206-212, Lugano, 2005.
83. Cannataro M., Comito C., Congiusta A., Folino G., Mastroianni C., Pugliese A., Spezzano G., Talia D., Veltri P., "A general architecture for Grid-based PSE toolkits", *International Workshop on State-of-the-Art in Scientific Computing (PARA)*, Copenhagen (Danimarca), 2004.
84. Folino G., Pizzuti C., Spezzano, "Boosting technique for Combining Cellular GP Classifiers", *Proc. of the 7th European Conference on Genetic Programming, EUROGP04*, Coimbra, Portugal, pp. 47-56, LNCS vol. 3003, Springer Verlag. 2004.
85. G. Folino, A. Forestiero, G. Spezzano "Discovering Clusters in Spatial Data using Swarm Intelligence" *Proc. of 7th European Conf. on Artificial Life ECAL2003*, LNAI 2801, Springer-Verlag, pp. 598-605, 2003.
86. G.Folino, C.Pizzuti, G.Spezzano, L.Vanneschi, and M. Tomassini "Diversity analysis in cellular and multipopulation genetic programming" in *Congress on Evolutionary Computation (CEC'03)*, pages 305–311, Canberra, Australia, IEEE Press, Piscataway, NJ. 2003
87. G. Folino, A. Forestiero, G. Spezzano "An Approach to Spatial Data Mining Inspired by Agent Swarming", *Workshop Vita Artificiale*, Rende, pp.34-37, 2003.

88. G. Folino, C. Pizzuti, G. Spezzano "Cellular Genetic Programming with Bagging and Boosting for the Data Mining Classification, *Workshop Vita Artificiale*, Rende, pp. 23-28, 2003.
89. G. Folino, A. Forestiero, G. Spezzano "Swarming Agents for Discovering Clusters in Spatial Data", Proc. of the IEEE 2nd International Symposium on Parallel and Distributed Computing, IEEE Computer Society, pp. 72-79, 2003.
90. G. Folino, G. Spezzano "SPARROW : A Spatial Clustering Algorithm using Swarm Intelligence" Proc. of the 21st International Multi-Conference on Applied Informatics - AI 2003, Innsbruck, pp. 50-53, 2003.
91. Folino G., Pizzuti C., Spezzano G., "Ensemble Techniques for Parallel Genetic Programming based Classifiers", Proc. of the 6th European Conference on Genetic Programming, EUROGP03, 2003, Essex, pp. 59-69, LNCS vol. 2610, Springer Verlag.
92. G. Folino, G. Spezzano "An Adaptive Flocking Algorithm for Spatial Clustering", Proc. of Seventh International Conf. on Parallel Problem Solving from Nature PPSN'2002, LNCS 2439, Springer-Verlag, pp. 924-933, 2002.
93. Spezzano G. "Cellular Automata Models Applied to Landslides Simulation on High Performance Computers", Proc. of the 3th Conference of the International Society for Ecological Informatics, Grottaferrata, pp.23-28, 2002.
94. Folino G., Pizzuti C., G. Spezzano "Improving Induction Decision Trees with Parallel Genetic Programming" Proc. of the IEEE 10th Euromicro Workshop on Parallel, Distributed and Network-based Processing, PDP 2002, IEEE Computer Society, pp. 181-187, 2002.
95. P. Corsonello, G. Spezzano, G. Staino, D. Talia "Efficient Implementation of Cellular Algorithms on Reconfigurable Hardware", Proc. of the IEEE 10th Euromicro Workshop on Parallel, Distributed and Network-based Processing, PDP 2002, IEEE Computer Society, pp. 211-218, 2002.
96. Dattilo G., Spezzano G., "Parallel Simulation of a Cellular Landslide Model Using Camelot" in *Parallel Computing: Advances and Current Issues - Proceedings ParCo 2001*, Imperial College Press, pp. 117-124, 2002.
97. Folino G., Pizzuti C., G. Spezzano, "Parallel Genetic Programming for Decision Tree Induction" Proc. of the 13th IEEE Int. Conference on Tools with Artificial Intelligence ICTAI'2001, IEEE Computer Society, pp. 129-135, 2001.
98. Spezzano G., D.Talia, "High Performance Computing : Tools and Applications", *Proc. of the Workshop on Parallel Computations on Clusters*, Nizhni Novgorod, Russia, 2001.
99. Folino G., Spezzano G., "Predictability of Cellular Programs Implemented with CAMELOT", Proc. of the 9th IEEE Euromicro Workshop on Parallel and Distributed Processing PDP'2001, IEEE Computer Society, pp. 468-474, 2001.
100. Folino G., Pizzuti C., Spezzano G, "CAGE: A Tool for Parallel Genetic Programming Applications", Proc. of the 4th European Conference on Genetic Programming EuroGP '2001, LNCS 2038, Springer-Verlag, pp. 64-73, 2001.
101. Folino G., Spezzano G. "A Cellular Environment for Steering High Performance Scientific Computations", *Parallel Computing: Fundamentals & Applications Proceedings of the International Conference ParCo'99*, E. H. D'Hollander and J. R. Joubert and F. J. Peters and H. Sips (Eds.), Delft, The Netherlands, pp. 493-500, Imperial College Press, 2000.
102. G. Folino, G. Spezzano, "CELLAR: A High Level Cellular Programming Language with Regions", Proc. of the 8th IEEE Euromicro Workshop on Parallel and Distributed Processing PDP'2000, IEEE Computer Society, pp. 259-266, 2000.

103. Spezzano G., "Simulating Parallel Models of Landslides by a Computational Steering Environment" Proc. of the 18th International Conference on Applied Informatics AI'2000, Austria, 2000.
104. G. Folino, G. Spezzano, "A Problem Solving Environment for Interactive Simulation of Bioremediation Models on Parallel Computers", Proc. of the 16th IMACS World Congress 2000 on Scientific Computation, Applied Mathematics and Simulation, Lausanne, 2000.
105. Folino G., Pizzuti C., Spezzano G., "Genetic Programming and Simulated Annealing: A Hybrid Method to Evolve Decision Trees" Proc. of the 3rd European Conference on Genetic Programming EuroGP '2000, LNCS 1802, Springer-Verlag, pp. 294-303, 2000.
106. Folino G., Spezzano G., "Scalability Analysis and Performance Prediction for Cellular Programs on Parallel Computers", Proc. of the 4th International Conference on Cellular Automata for Research and Industry ACRI'2000, Springer, pp. 37-46, Karlsruhe, Germany.
107. Folino G., Pizzuti C., Spezzano G., "Scalable Classification of Large Data Sets by Parallel Genetic Programming", Proc. of the Workshop on Distributed and Parallel Systems DAPSYS'2000, Kluwer Academic Publishers, pp. 87-90, Lake Balaton, Hungary, 2000.
108. Folino G., Pizzuti C., Spezzano G., "A Cellular Genetic Programming Approach to Classification", Proc. of the GECO'99 Genetic and Evolutionary Computation Conference, Morgan Kaufmann Publishers, S. Francisco, CA, pp. 1015-1026, 1999.
109. Folino G., Spezzano G., "Un Ambiente Parallelo per la Simulazione e lo Steering Interattivo di Applicazioni Scientifiche", Atti del Convegno Annuale AICA'99, AICA, Abano Terme, pp. 178-189, 1999.
110. Folino G., Spezzano G., "Bioremediation Experiments using Interactive Computational Steering on High Performance Computers", Proc. of Fifth European SGI/ Cray Massively Parallel Processing Workshop, Bologna, 1999.
111. Spezzano G., "Simulating Cellular Models of Landslides by an Interactive Computational Steering System", Proc. VI Workshop GIAST'99, San Sepolcro (AR), 1999.
112. Folino G., Spezzano G., Talia D., "Performance Evaluation and Modeling of MPI Communications on the Meiko CS-2", Proc. of HPCN Europe '98, LNCS, Springer-Verlag, pp. 932-936, 1998.
113. Folino G., Pizzuti C., Spezzano G., "Solving the Satisfiability Problem by a Parallel Cellular Genetic Algorithm", Proc. of the 24th EUROMICRO Conference, IEEE Computer Society, pp. 715-722, Sweden, 1998.
114. Spezzano G., D. Talia "Language Constructs and Run-time System for Parallel Cellular Programming", Proc of Euro-Par'98 Parallel Processing, LNCS 1470, Springer-Verlag, pp. 669-675, 1998.
115. Folino G., Spezzano G., D. Talia "Evaluating and Modeling Communication Overhead of MPI Primitives on the Meiko CS-2", Proc. of Euro PVM/MPI'98, LNCS 1497, Springer-Verlag, pp. 27-35, 1998.
116. Folino G., Pizzuti C., Spezzano G., "Combining Cellular Genetic Algorithms and Local Search for Solving Satisfiability problems", Proc. of ICTAI'98 10th IEEE International Conference Tools with Artificial Intelligence, IEEE Computer Society, pp. 192-198, 1998.
117. Spezzano G, Talia D., "A High-Level Language for Programming Cellular Algorithms on Parallel Machines", ACRI '96 -Proc. 2nd Conference on Cellular Automata for Research and Industry, S. Bandini and G. Mauri (Eds.), Springer-Verlag, London, pp. 187-196, 1997.
118. Spezzano G., Talia D., "A High-level Cellular Programming Model for Massively Parallel Processing", Proc. of the 2nd Int. Workshop on High-Level Programming Models and Supportive Environments HIPS'97, IEEE Computer Society Press, pp. 55-63, 1997.
119. Spezzano G., Talia D., "Programming High Performance Models of Soil Contamination by a Cellular Automata Language" Proc. of HPCN Europe '97, LNCS 1225, Springer-Verlag, pp. 531-540, 1997.

120. Pizzuti C., Spezzano G., Ursino D., "A Cellular Genetic Algorithm for Satisfiability Problems", in *Advances in Intelligent Systems*, F.C. Morabito (Ed.), IOS Press, Amsterdam, pp. 408-413, 1997.
121. G. Spezzano "A Cellular Programming Environment for Computational Steering", *ERCIM NEWS*, n. 31, pp.49-50, 1997.
122. Pizzuti C., Spezzano G., "A Cellular Evolutionary Algorithm to Solve Satisfiability Problem", *Proc. of CAEPIA'97*, Malaga (SPAIN), Nov. 12-14, 1997.
123. Di Gregorio S., Festa D., Gattuso D., Rongo R., Spataro W., Spezzano G., Vitetta A., "Cellular Automata for Freeway Traffic Simulation", *Artificial World and Urban Studies*, E. Bessusi and A. Cecchini (Eds.), DAEST, Venezia, pp. 365-379, 1996.
124. Di Gregorio S., Festa D.C., Rongo R., Spataro W., Spezzano G., Talia D., "A Microscopic Freeway Traffic Simulator on a Highly Parallel System", in *Parallel Computing: State-of-the-Art and Perspectives*, E. D'Holander, G.R. Joubert, F.J. Peters, D. Trystram (Eds.), North-Holland, pp. 69-76, 1996.
125. Spezzano G., Talia D., "CARPET: A Programming Language for Parallel Cellular Processing Proc. of ESPPE'96, Alpe d'Huez, France, pp. 71-74, 1996.
126. Di Gregorio S., Rongo R., Spataro W., Spezzano G., Talia D., "A Parallel Cellular Environment for High Performance Scientific Computing", in H. Liddell et al. (Eds.), *HPC N'96 High-Performance Computing and Networking*, LNCS 1067, Springer-Verlag, Berlin, pp. 514-521, 1996.
127. Di Gregorio S., Rongo R., Serra R., Spataro W., Spezzano G., Talia D., Villani M. "Parallel Simulation of Soil Contamination by Cellular Automata", *Proc. Parcella '96 Seventh International Workshop on Parallel Processing by Cellular Automata and Arrays*, R. Volmar, W. Erhard, V. Jossifov (Eds.), Akademie Verlag, Berlin, pp. 295-297, 1996.
128. Di Gregorio S., Rongo R., Spataro W., Spezzano G., Talia D., "A Parallel Cellular Simulator for Bioremediation of Contaminated Soils", in *Development and Application of Computer Techniques to Environmental Studies*, Computational Mechanics Publications, Southampton, pp. 685-694, 1996.
129. G. Spezzano, D. Talia, "A Parallel Tool and a Language for Scientific Applications", *Proc. European Parallel Tools Meeting '96*, Chatillon, France, 1996.
130. Spezzano G., Talia D., "Implicit Parallelism Models based on Logic Programming", (Book Chapter) in *Parallel Computers: Architectures, Programming Environments, and Tools*, G. Balbo e M. Vanneschi (Eds.), pp. 251-266, Edizioni ETS, Pisa, 1995.
131. Di Gregorio S., Festa D.C., Rongo R., Spataro W., Spezzano G., "Simulation of Highway Traffic by Cellular Automata", *Annual Conference AIRO'95*, Ancona, pp. 203-206, September 1995.
132. Cannataro M., Di Gregorio S., Rongo R., Spataro W., Spezzano G., Talia D., "A Parallel Cellular Automata Environment for Modeling Complex Systems", *Proc. ICANN'94 Inter. Conf. on Artificial Neural Networks*, M. Marinaro, P.G. Morasso (Eds.), Springer-Verlag, Berlin, pp. 1440-1443, 1994.
133. Cannataro M., Spezzano G., Talia D., "A Load Balancing Algorithm for Massively Parallel Systems" *Proc. IFIP Conference on Programming Environment for Massively Parallel Distributed Systems*, Birkhauser Verlag, Basel, pp. 275-288, April 1994.
134. Di Gregorio S., Nicoletta F., Rongo R., Sorriso-Valvo M., Spezzano G., Talia D., "Landslide Simulation by Cellular Automata in a Parallel Environment", *Proc. 2nd Int. Workshop on Massive Parallelism: Hardware, Software, Applications*, M. Mango Furnari (Ed.), World Scientific Publishing, London, pp. 392-407, 1994.
135. Candelieri A., Cannataro M., Spezzano G., Talia D., "Esecuzione Efficiente di Programmi Logici Paralleli nel Sistema PALM", *Atti del Convegno Annuale AICA'94*, AICA, Palermo, vol. 1, pp.671-684, September 1994.
136. Di Gregorio S., Spezzano G., Talia D. "CAMEL: A Parallel Cellular Environment for Interactive Simulation", *Proc. Convegno ACRI'94, Serie Atti e Simposi ENEA*, Rende, pp. 169-180, 1994.

137. Cannataro M., Ya. D. Sergeyev, Spezzano G., Talia D., "A Dynamic Load Balancing Strategy for Massively Parallel Computers", in A. Bode, M. Reeve and G. Wolfe (Eds.), PARLE'93 Parallel Architectures and Languages and Europe, LNCS 694, Springer-Verlag, Berlin, pp. 664-667, 1993.
138. Spezzano G., "Una Strategia Dinamica di Bilanciamento del Carico per Programmi Distribuiti", Atti del Convegno Annuale Unix, Milano, pp. 261-269, 1993.
139. Cannataro M., Spezzano G., Talia D., "PALM: Implementation of Logic Programs", in Models and Tools for Massively Parallel Architectures, M. Vanneschi, (Ed.), CNR, Napoli, pp. 117-128, 1993.
140. Cannataro M., Di Gregorio S., Rongo R., Spataro W., Spezzano G., Talia D., "CAMEL: A Cellular Automata Environment on a Highly Parallel Computer", Proc. of the Inter. Section AIC A'93, pp. 143-158, Gallipoli (Lecce), 1993.
141. Cannataro M., Spezzano G., Talia D., "A Parallel Architecture for the Implementation of a Distributed Inference Engine", in Parallel Computing: Problems, Methods and Applications, P. Messina & A. Murli (Eds.), Elsevier, pp. 415-425, 1992.
142. Cannataro M., Spezzano G., Talia D., "Esecuzione Parallela di Programmi Logici su Architetture a Memoria Distribuita", Atti del Workshop AICA Elaborazione parallela: Ricerca ed Applicazioni, AICA, pp. 385-399, Roma, 1992.
143. Cannataro M., Spezzano G., Talia D., "Adaptive Deadlock-Free Routing Algorithm for Multicomputer Networks", in Parallel Computing: From Theory to Sound Practice, W. Joosen & E. Milgrom (Eds.), IOS Press, Amsterdam, pp. 592, 1992.
144. Cannataro M., Ya. D. Sergeyev, Spezzano G., Talia D., "Dynamic Process Scheduling in a Parallel Logic Machine", Proc. of the JIC SLP'92 Joint Workshop on Distributed and Parallel Implementations of Logic Programming Systems, Washington D.C., pp. 22-31, 1992.
145. Cannataro M., Spezzano G., Talia D., "PARADISE: A Parallel Architecture for a Distributed Inference Engine", Proceedings of IEEE COMPEURO '91, Bologna, pp. 26-30, 1991.
146. Baiardi F., Candelieri A., Ricci L., Spezzano G., Talia D., "Strumenti per la parallelizzazione di programmi logici: FIXUP, OPTIMA e PALM", in Sistemi Informatici e Calcolo Parallelo, B. Fadini (Ed.), FrancoAngeli, pp. 139-148, Roma, 1991.
147. Spezzano G., Talia D., "L'uso di Strumenti Automatici per l'Estensione Concorrente di Linguaggi Sequenziali in Ambiente Unix", Atti del Convegno Annuale Unix, Milano, pp. 441-455, 1991.
148. Cannataro M., Spezzano G., Talia D., "A Distributed Implementation of OR Parallel Interpretation of Logic Programs", Proceedings of the ILPS'91 Workshop on Implementation of Parallel Logic Programming Systems, San Diego, CA, 1991.
149. Cannataro M., Spezzano G., Talia D., "A Highly Decentralized Architecture for the Parallel Execution of Logic Programs", in Decentralized Systems, M. Cosnard & C. Girault (Eds.), North-Holland, Amsterdam, pp. 235-246, 1990.
150. Cannataro M., Spezzano G., Talia D., "The Development of a Multi-Transputer Implementation of the AND/OR Process Model", in Transputer Research and Applications 2, J. Board Jr.(Ed.), IOS Press, Amsterdam, pp. 265-281, 1990.
151. Cannataro M., Spezzano G., Talia D., "Evaluation of Routing Algorithms for a Parallel Machine", in Supercomputing Tools for Science and Engineering, D. Laforenza, R. Perego, (Eds.), FrancoAngeli, Milano, pp. 169-175, 1990.
152. Gallizzi E., Cannataro M., Spezzano G., Talia D., "A Deadlock-Free Communication System for a Transputer Network", in Tools and Techniques for Transputer Applications, S.J. Turner (Ed.), IOS Press, Amsterdam, pp. 11-21, 1990.
153. Cannataro M., Spezzano G., Talia D., "Strumenti per la Programmazione Parallela: L'esperienza CRAI", Atti del Convegno Unix al Castello, Napoli, pp. 327-336, 1990.

- 154.** Cannataro M., Spezzano G., Talia D., "Valutazioni di Algoritmi di Routing per una Macchina Parallela Basata sul Transputer", Atti del Convegno Annuale AICA' 89, AICA, vol. 1, pp. 37-52, Trieste, 1989.
- 155.** Spezzano G., Talia D., "The Design of Fault-Tolerant Distributed Software Using a Concurrent Language", Proceedings of 12th International Conference on FTSD, pp. 260-265, Prague, 1989.
- 156.** Spezzano G., Talia D., "An Approach to Reliability in Distributed Programming", Proceedings of EUUG Autumn 89 Conference, pp.257-263, Vienna, 1989.
- 157.** Spezzano G., Talia D., "A Language Based Approach for Reliable Distributed Computing", Proceedings of the Workshop on the Future Trends of Distributed Computing Systems, IEEE CS Press, pp. 262-269, Hong Kong, 1988.
- 158.** Spezzano G., Talia D., Vanneschi M., "NERECO: An Environment for the Development of Distributed Software", Proceedings of the EUUG Conference, pp.153-167, Dublin, 1987.
- 159.** Gaudenzi F., Pagano R., Spezzano G., Talia D., Vanneschi M., "NERECO: un Ambiente per lo Sviluppo di Programmi Distribuiti", Atti del Convegno Annuale AICA'87, AICA, Trento, vol. 1, pp. 95-110, 1987.