

7

References

- Akyildiz, I., Su, W., Sankarasubramaniam, Y., Cayirci, E. (2002) "A survey on sensor networks". *IEEE Communications Magazine*, 40(8):102–114.
- Balci, O., Arthur, J. D., Nance, R. E. (2008) "Accomplishing reuse with a simulation conceptual model". In *Proceedings of the 40th Winter Simulation Conference*, 959-965
- Bandini, S., Manzoni, S., Vizzari, G. (2009) "Crowd Behavior Modeling: From Cellular Automata to Multi-Agent Systems". Published in *Multi-Agent Systems: Simulation and Applications*, by A.M. Uhrmacher and D. Weyns, chapter 10, pp. 301-324.
- Banks, J., Carson, J., Nelson, B., Nicol, D. (2005) "Discrete-Event System Simulation". Fourth Edition. Upper Saddle River, NJ: Prentice Hall.
- Batty, M. (2005) "Cities and Complexity". The MIT Press, Cambridge, MA
- Benjamin, P., Akella, K. (2009) "Towards ontology-driven interoperability for simulation-based applications". In *Proceedings of the 41st Winter Simulation Conference*.
- Bigley, G. A., Roberts, K. H. (2001) "The Incident Command System: High-Reliability Organizing for Complex and Volatile Task Environments". *The Academy of Management Journal*, 44(6), pp. 1281-1299.
- Blythe, J. (1999) "An Overview of Planning under Uncertainty". *AI Magazine* 20(2), pp. 37-54.
- Bonabeu, E., Dorigo, M., Theraulaz, G. (1999) "Swarm Intelligence. From Natural to Artificial Systems". Oxford University Press, Oxford, U.K.
- Bordini, R. H., Hübner, J. F. (2009) "Agent-based simulation using BDI programming in Jason". In A. Uhrmacher and D. Weyns (Eds.), *Multi-Agent Systems: Simulation and Applications*, Taylor and Francis, pp 451-476
- Carneiro, T. (2006) "Nested-CA: A Foundation for Multiscale Modelling of Land Use and Land Cover Change". Doctorate Thesis from the Post Graduation Course in Applied Computer Science, INPE - Sao Jose dos Campos, Brazil
- Carvalho, M. T., Freire, J., Casanova, M. A. (2001) "The Architecture of an Emergency Plan Deployment System". *Proc. III Brazilian Symposium on Geoinformatics*, Rio de Janeiro, Brazil.
- Casati, F., Ceri, S., Pernici, B. and Pozzi, G. (1995) "Conceptual modeling of workflows". In *Proc. of the 14th International Object-Oriented and Entity-Relationship Modelling Conference (OOER'95)*, pp 341-354, Springer Verlag.

- Cellier, F. E. (1986) "Combined Discrete/Continuous System Simulation - Application, Techniques and Tools". In Proceedings of the 1986 Winter Simulation Conference, SCS
- Chinmoy S., Abbasi, S. (2006) "Cellular automata-based forecasting of the impact of accidental fire and toxic dispersion in process industries". *Journal of Hazardous Materials*, 137(1), pp. 8-30.
- Coyne, M. E., Graham, S. R., Hopkinson, K. M., Kurkowski, S. H. (2008) "A methodology for unit testing actors in proprietary discrete event based simulations". In Proceedings of the 40th Winter Simulation Conference, 1012-1019
- Dalmau, D. (2003) "Core Techniques and Algorithms in Game Programming", New Riders, Indianapolis.
- de la Beaujardiere, J. (ed) (2006) "Web Map Service Implementation Specification". Open Geospatial Consortium Specification 06-042. <http://www.opengeospatial.org/standards/wms>
- Deshpande, A., Göllü, A., Varaiya, P. (1997) "A Formalism and a Programming Language for Dynamic Networks of Hybrid Automata". In *Hybrid systems IV*. LNCS, Springer-Verlag.
- Dykes, J., MacEachren, A. M., and Kraak, M.-J. (eds) (2005) "Exploring Geovisualization". Elsevier, Amsterdam, the Netherlands.
- Eberly, D. (2003) "Game Physics". Morgan Kaufmann
- Egenhofer, M., Franzosa, R. (1991) "Point-set topological spatial relations". In *International Journal of Geographical Information Systems*, 5(2):161-174
- Eker, J., Janneck, J. W., Lee, E. A., Liu, J., Liu, X., Ludvig, J., Neuendorffer, S., Sachs, S., Xiong, Y. (2003) "Taming heterogeneity - the Ptolemy approach". In *Proceedings of the IEEE*, 91(2)
- Erol, K. (1995) "Hierarchical Task Network Planning: Formalization, Analysis and Implementation". Ph.D. thesis, Dept. of Computer Science, University of Maryland.
- Fernandes, A., Ciarlini, A., Furtado, A., Hinchey, M., Casanova, M., Breitman, K. (2007) "Adding flexibility to workflows through incremental planning". In *Innovations in Systems and Software Engineering*, 3:291-302
- Fikes, R. E.; Nilsson, N. J. (1971). "STRIPS: A new approach to the application of theorem proving to problem solving". *Artificial Intelligence*, 2 (3-4)
- Fingas, M. (2000) "The Basics of Oil Spill Cleanup, Second Edition". CRC Press, Boca Raton, FL.
- Forrester, J. (1972) "World Dynamics". Wright-Allen Press, Cambridge, MA.
- Frasca, G. (2003) "Simulation versus Narrative: Introduction to Ludology". In: Wolf & Perron (Eds.) *The Video Game Theory Reader*. Routledge.
- Gamma, E., Helm, R., Johnson, R., Vlissides, J. (1995) "Design Patterns: Elements of Reusable Object-Oriented Software". Addison-Wesley, Reading, MA

- Gimblett, H. R., ed. (2002) "Integrating geographic information systems and agent-based modeling techniques for simulating social and ecological processes". Oxford: Oxford University Press.
- Giunchiglia, F., Villafiorita, A., Walsh, T. (1997) "Theories of Abstraction". AI Comm. 10 3-4, pp. 167-176.
- Gonçalves, A. S., Rodrigues, A., Correia, L. (2004) "Multi-agent simulation within geographic information systems". In: Proceedings of the 5th International Workshop on Agent-Based Simulation, Lisbon, Portugal
- Gütting, R. H. (1994) "An introduction to spatial database systems". VLDB J. 3 (Oct.), 357–399
- Himmelspach, J., Uhrmacher, A. M. (2007) "Plug'n simulate". In Proceedings of the 40th Annual Simulation Symposium, pp 137-143. IEEE Computer Society.
- IEEE (2000) "IEEE 1516". (Standard for Modelling and Simulation High Level Architecture Framework and Rules)
- Karafyllidis, I. (1997) "A model for the prediction of oil slick movement and spreading using cellular automata", Environment International, Elsevier, 23:6, pp. 839-850.
- Kautz, H. A. (1991) "A Formal Theory of Plan Recognition and its Implementation". Published in Reasoning About Plans, by J.F. Allen et al, chapter 2, pp. 69-126, San Mateo, CA
- Kesting, A., Treiber, M., Helbing, D. (2009) "Agents for Traffic Simulation". Published in Multi-Agent Systems: Simulation and Applications, by A.M. Uhrmacher and D. Weyns, chapter 11, pp. 325-356.
- Klir, G. J. (1985) "Architecture of Systems Complexity". Saunders, New York.
- Klügl, F., Puppe, F. (1998) "The multi-agent simulation environment SeSAM". In Proceedings of Workshop "Simulation in Knowledge-based Systems".
- Klügl, F. (2009) "SeSAM: Visual Programming and Participatory Simulation for Agent-Based Models". Published in Multi-Agent Systems: Simulation and Applications, by A.M. Uhrmacher and D. Weyns, chapter 16, pp. 477-507.
- Kolb, D. (1984) "Experimental Learning: Experience as the Source of Learning and Development", Upper Saddle River: Prentice-Hall
- Lee, E. A., Zheng, H. (2005) "Operational Semantics of Hybrid Systems". Invited paper in Proc. of Hybrid Systems: Computation and Control (HSCC) LNCS 3414: 25-53, Zurich, Switzerland.
- Metello, M., Vera, M., Lemos, M., Masiero, L., Carvalho, M.T.M. (2007) "Continuous Interaction with TDK Improving the User Experience in Terralib". In: Proc. IX Brazilian Symp. on GeoInformatics, Campos dos Jordão, Brazil.
- Metello, M., Casanova, M. A., Carvalho, M. T. M. (2008) "Using Serious Game Techniques to Simulate Emergency Situations". In: Proc. X Brazilian Symposium on GeoInformatics, Rio de Janeiro, Brazil.
- Metello, M. G., Casanova, M. A. (2009) "Training Games and GIS". In: Gerhard Navratil. (Org.). Research Trends in Geographic Information Science. Berlin: Springer, p. 257-269.

- Michael, D. R., Chen, S. L. (2005) "Serious games: games that educate, train, and inform". Muska and Lipman/Premier-Trade
- Michel, F., Ferber, J., Drogoul, A. (2009) "Multi-Agent Systems and Simulation: A Survey from the Agent Community's Perspective". Published in Multi-Agent Systems: Simulation and Applications, by A.M. Uhrmacher and D. Weyns, chapter 1, pp. 3-51.
- Minar, N., Burkhat, R., Langton, C., Askenazi, M. (1996) "The swarm simulation system: A toolkit for building multi-agent simulations". Technical Report 96-06-042, The Santa Fe Institute, Santa Fe, NM.
- Modarres, M. (2006) "Predicting and improving complex business processes: values and limitations of modeling and simulation technologies". In Proceedings of the 38th Winter Simulation Conference, 598-603
- Nareyek, A. (2004) "AI in computer games". Queue 1(10):58-65. doi: <http://doi.acm.org/10.1145/971564.971593>
- North, M., Collier, N., Vos, J. (2006) "Experiences creating three implementations of the repast agent modeling toolkit". ACM Transactions on Modelling and Computer Simulation, 16(1):1-25.
- Owens, J., Luebke, D., Govindaraju, N., Harris, M., Kruger, J., Lefohn, A., Purcell, T. (2007) "A Survey of General Purpose Computation on Graphics Hardware". Computer Graphics Forum, 26(1):80-113.
- Pantel, L. Wolf, L. C. (2002) "On the impact of delay on real-time multiplayer games". In Proceedings of the 12th international Workshop on Network and Operating Systems Support for Digital Audio and Video (Miami, Florida, USA).
- Paynter, H. M. (1961) "Analysis and Design of Engineering Systems". MIT Press. Cambridge, MA.
- Percivall, G. (ed) (2003) "OpenGIS® Reference Model", Document number OGC 03-040, Version 0.1.3, Open GIS Consortium, Inc.
- Perumalla, K. S. (2006) "Parallel and distributed simulation: traditional techniques and recent advances". In Proceedings of the 38th Winter Simulation Conference, 84-95
- Piaget, J. (1992) "The Principles of Genetic Epistemology", New York: Basic Books
- Praehofer, H. (1991) "System Theoretic Formalisms for Combined Discrete-Continuous System Simulation". Int. J. Gen. Sys. 19(3), 219-240
- Praehofer, H., Auernig, F., Reisinger, G. (1993) "An Environment for DEVS-Based Multi-formalism Modeling and Simulation". Discrete Event Dynamic Systems: Theory and Applications 3, 119-149
- Rao, A. S. (1996) "AgentSpeak(L): BDI agents speak out in a logical computable language". In Proceedings of Modelling Autonomous Agents in a Multi-Agent World, number 1038 in LNAI, pp 42-55. Springer Verlag.
- Rao, A. S., Georgeff, M. P. (1992) "An abstract architecture for rational agents". In Proceedings of the 3rd International Conference on Principles of Knowledge Representation and Reasoning (KR'92), 439-449

- Reuters (2011) "Factbox: A look at the \$65 billion video games industry". Available at: <http://uk.reuters.com/article/2011/06/06/us-videogames-factbox-idUKTRE75552I20110606> (Accessed: 26 July 2011)
- Robinson, S. (2006) "Conceptual modeling for simulation: issues and research requirements". In Proceedings of the 38th Winter Simulation Conference, 792-800
- Röhl, M., Uhrmacher, A. M. (2008) "Definition and analysis of composition structures for discrete-event models". In Proceedings of the 40th Winter Simulation Conference, 942-950
- Sacerdoti, E. (1977) "A Structure for Plans and Behavior". American Elsevier, New York.
- Sánchez, P. J. (2006) "As simple as possible, but no simpler: a gentle introduction to simulation modeling". In Proceedings of the 38th Winter Simulation Conference, 2-10
- Sargent, R. G. (2009) "Verification and validation of simulation models". In Proceedings of the 41st Winter Simulation Conference, 130-143
- Sarjoughian, H., Kim, S., Ramaswamy, M., Yau, S. (2008) "A simulation framework for service-oriented computing systems". In Proceedings of the 40th Winter Simulation Conference, 845-853
- Schneider, M., Guthe, M., Klein, R. (2005) "Real-time rendering of complex vector data on 3d terrain models". In Proceedings of the 11th International Conference on Virtual Systems and Multimedia, pp. 573-582.
- Sheldon, L. (2004) "Character Development and Storytelling for Games". Premier Press, Boston.
- Smed, J., Kaukoranta, T., Hakonen, H. (2002) "Aspects of Networking in Multiplayer Computer Games". The Electronic Library, Volume 20, Number 2, 2002, pp. 87-97(11)
- Smith, R. (2007) "Game Impact Theory: Five Forces That Are Driving the Adoption of Game Technologies within Multiple Established Industries". Games and Society Yearbook
- Sowa, J. (2000) "Knowledge Representation: Logical, Philosophical, and Computational Foundations". Brook/Cole, a division of Thomson Learning: Pacific Grove, CA
- Sowizral, H. (2000) "Scene Graphs in the New Millennium". Vision 2000. January/February 56-57.
- Strauss, P. S., Carey, R. (1992) "An object-oriented 3D graphics toolkit". SIGGRAPH Comput. Graph. 26(2):341-349. doi: <http://doi.acm.org/10.1145/142920.134089>
- Susi, T., Johannesson, M., Backlund, P. (2007) "Serious Games - An Overview". Technical Report HS-IKI-TR-07-001, School of Humanities and Informatics, University of Skövde, Sweden
- Theodoropoulos, G. K., Minson, R., Ewald, R., Lees, M. (2009) "Simulation Engines for Multi-Agent Systems". Published in Multi-Agent Systems: Simulation and Applications, by A.M. Uhrmacher and D. Weyns, chapter 3, pp. 77-105.

- Troitzsch, K. G. (2009) "Multi-Agent Systems and Simulation: A Survey from an Application Perspective". Published in *Multi-Agent Systems: Simulation and Applications*, by A.M. Uhrmacher and D. Weyns, chapter 2, pp. 53-75.
- Tumay, K. (2006) "Business Process Simulation". In *Proceedings of the 28th Winter Simulation Conference*, 93-98
- Uhrmacher, A. M. (1997) "Concepts of Object- and Agent-Oriented Simulation". In: *Transaction on SCS*, Vol. 14(2), 56-67
- Uhrmacher, A. M. (2001) "Dynamic Structures in Modeling and Simulation - A Reflective Approach". *ACM Transactions on Modeling and Simulation*, 11(2): 206-232.
- Uhrmacher, A. M., Swartout, W. (2003) "Agent Oriented Simulation" In M. Obaidat and G. Papadimitriou (Eds.), *Applied System Simulation*. Kluwer Academic Press.
- Valente, L., Conci, A., Feijo, B. (2005) "Real time game loop models for single-player computer games". In *Proceedings of the IV Brazilian Symposium on Computer Games and Digital Entertainment*, 89-99.
- van der Aalst, W.M.P.; der Hofstede. A.H.M.; Kiepuszewski, B.; Barros, A.P. (2003) "Workflow Patterns". *Distributed and Parallel Databases*, 14(1): 5-51(47).
- van Deursen, W.P.A. (1995) "Geographical Information Systems and Dynamic Models". Ph.D. thesis, Utrecht University, NGS Publication 190, 198 pp. Electronically available through www.carthago.nl
- Vangheluwe, H. L. (2000) "DEVS as a common denominator for multi-formalism hybrid systems modelling". *IEEE International Symposium on Computer-Aided Control System Design*, pp 129--134, Anchorage, Alaska
- von Neumann, J. (1966) "Theory of self-reproducing automata". Illinois: A.W. Burks
- Wagner, G., Nicolae, O., Werner, J. (2009) "Extending discrete event simulation by adding an activity concept for business process modeling and simulation". In *Proceedings of the 41st Winter Simulation Conference*, 2951-2962
- Wainer, G., Giambiasi, N. (2001) "Timed Cell-DEVS: modelling and simulation of cell spaces", H. Sarjoughian, F. Cellier Eds., Springer-Verlag
- Weske, M. (2007) "Business Process Management - Concepts, Languages, Architectures", Springer.
- Westera, W., Nadolski, R. J., Hummel, H. G. K., Wopereis, I. G. J. H. (2008) "Serious Games for Higher Education: a Framework for Reducing Design Complexity". *Journal of Computer Assisted Learning*, 24: 420-432.
- Zeigler, B. (1972) "Toward a formal theory of modeling and simulation: Structure preserving morphisms". *Journal of the ACM (JACM)*, 19(4):742-764. ISSN 0004-5411. doi: <http://doi.acm.org/10.1145/321724.321737>.
- Zeigler, B. P., Praehofer, H., Kim, T. G. (2000) "Theory of Modeling and Simulation". Academic Press: San Diego, CA.