

List of Publications¹

Bastien Chopard

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Books

1. B. Chopard and M. Droz, *Cellular Automata Modeling of Physical Systems*, Cambridge University Press, Collection Aléa, 1998 341 pages
2. B. Chopard and M. Droz, *Cellular Automata Modeling of Physical Systems*, Tsinghua University Press, 2003, Chinese translation.

Chapter in book

1. B. Chopard and P. Sloot, in *Algorithmic beauty of seaweeds, Sponges and Corals*, J.A Kaandrop and J. E. Kuebler, Springer Verlag Berlin Heidelberg, 2001.
2. B. Chopard, *Cellular Automata Modeling of Physical Systems*, pp 865-892 Springer Encyclopedia of Complexity and Systems Science, 2009 ISBN 978-0-387-75888-6
3. B. Chopard, *Cellular Automata and lattice Boltzmann modeling of physical systems*, Handbook on Natural computing, in press.
4. B. Chopard, *Basics of Grid refinement in Lattice Boltzmann*, in Lectures on Lattice Boltzmann Methods for complex fluid flows, Stefano Ubertini et al (Edt), p. 120, Science4 Press, ISBN 9788896504000. 2009
5. B. Chopard, *High performance computing in Lattice Boltzmann models*, in Lectures on Lattice Boltzmann Methods for complex fluid flows, Stefano Ubertini et al (Edt), p. 120, Science4 Press, ISBN 9788896504000. 2009.
6. Alfons G. Hoekstra, Alfonso Caiazzo, Eric Lorenz, Jean-Luc Falcone, and Bastien Chopard. *Complex Automata: multi-scale Modeling with coupled Cellular Automata*, in Modelling Complex Systems by Cellular Automata, chapter 3, Springer Verlag, 2010.

Proceedings

1. Cellular Automata, 5th Int. Conf. on Cellular Automata for research and Industry (ACRI 2002), Geneva, Switzerland, Oct 2002. S. Bandini, B. Chopard and M. Tomassini Eds, LNCS 2493, 2002.

¹<http://cui.unige.ch/~chopard/Publication/publication.pdf>

2. Cellular Automata, 6th Int. Conf. on Cellular Automata for research and Industry (ACRI 2004), Amsterdam, The Netherlands, Oct. 2004. PMA Sloot, B. Chopard and A. Hoekstra Eds, LNCS 3305, 2004.
3. Cellular Automata, 7th Int. Conf. on Cellular Automata for research and Industry (ACRI 2006), Perpignan, France, Sept 20-23, 2006, S. El Yacoubi, B. Chopard and S. Bandini Eds, LNCS 4173, 2006.
4. International Journal of Multiscale Computational Engineering, Vol 4 (2), 2006. V. Krzhizhanovska, B. Chopard, Y. Gorbachev, Guest Editors
5. Discrete Simulation of Fluid Dynamics, DSFD 2006, Geneva. Int. J. Mod. Phys. C, Vol 18 (4), B. Chopard and M. Droz, Guest Editors.
6. Focus on Recent Advances in Particle Methods for Fluid Dynamics, Special Issue in J. Stat. Mech. Theo. Exp (JSTAT), Paulo C Philippi and Bastien Chopard Eds, 2009 (<http://www.iop.org/EJ/journal/-page=extra.focus6/jstat>)

Journals

1. B. Chopard and P. Bouvier *Covariance d'échelle et approximation post-newtoniennes dans le cadre de la relativité générale*, Archives des Sciences **35**, 251 (1982).
2. B. Chopard and M. Droz *Cellular automata approach to non equilibrium phase transitions in a surface reaction model: static and dynamic properties*, J. Phys. A **21**, 205, (1988).
3. B. Chopard and M. Droz, *Cellular automata model for heat conduction in a fluid*, Phys. Lett. A **126**, 476, (1988).
4. B. Chopard and M. Droz, *Cellular automata approach to physical problems*, HPA **61**, 801, (1988).
5. B. Chopard and M. Droz, *Cellular automata approach to nonequilibrium correlation functions in a fluid*, HPA **61**, 893, (1988).
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7. B. Chopard, *A Cellular Automata Model of Large Scale Moving Objects*, J. Phys **A23**, 1671-87, (1990).
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9. B. Chopard and M. Droz, *Microscopic Study of the Properties of the Reaction Front in an $A + B \rightarrow C$ Reaction-Diffusion Process*, Europhysics Letters **15**, 459-464, (1991).
10. B. Chopard, *Numerical Simulation of a Langevin Dynamics of Wetting*, J. Phys. **A24**, L345-L350, (1991).

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12. B. Chopard, F. Bagnoli, M. Droz and L. Frachebourg, *Critical behavior of a diffusive model with one adsorbing state*, J. Phys. **A 25**, 1085 (1992).
13. B. Chopard, H.J. Herrmann and T. Vicsek, *Structures and Growth Mechanism of Mineral Dendrites*, Nature **353**, p. 409-412, (1991).
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24. Bastien Chopard, Pascal O. Luthi and Jean-Frdric Wagen, *A lattice Boltzmann method for wave propagation in urban microcells*, IEE Proceedings - Microwaves, Antennas and Propagation, Vol. 144, No 4., p. 251-255, 1997.

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34. A. Masselot and B. Chopard *A Multiparticle Lattice Gas Model for Hydrodynamics*, Workshop on Discrete fluid simulation, Oxford 1998 and *Int. J. Mod. Phys. C* **9**, No. 8. p. 1221, 1998.
35. Alexandre Dupuis and Bastien Chopard, *Parallel traffic simulation on Geneva using cellular automata*, *Parallel and Distributed Computing Practices (PDCP)*, Vol. 1(3), pp. 79-92, 1998.
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International Conferences

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