

List of publications
Christian Mazza

Papers

1. Mazza, Christian and OConnell, Neil. Microscopic and macroscopic aspects of epidemics. *Appl. Math. Comput.* 47 (1992), no. 2-3, 237-258.
2. Mazza, Christian. Parallel simulated annealing. *Random structures and algorithms* 3. (1992), no. 2, 139-148.
3. Mazza, Christian. Echantillonneur de Gibbs parallèle sur une grille. *C.R.Acad.Sci. Paris,Série I*, 317 (1993), 615-618.
4. Mazza, Christian. Asymptotic first hitting time distribution of annealing processes. *SIAM Journal Control and Optimization.* 32. (1994), no. 5, 1266-1288.
5. Deuschel, Jean-Dominique, and Mazza, Christian. L2 Convergence of time nonhomogeneous Markov processes. I. Spectral estimates. *The Annals of Applied Probability.* 4 (1994). no. 4. 1012-1056.
6. Mazza, Christian. On the storage capacity of nonlinear neural networks. *Neural Networks*, vol. 10, no. 4, 593-597, 1997.
7. Mazza, Christian. Neural nets inference and content addressable memory. Special Issue on pattern recognition of the *IEEE Transactions on neural networks*, vol. 8, no.1, 133-141, 1997.
8. Mazza Christian. On the mean pair correlation function of $+ - J$ Ising spin glasses. *Journal of Statistical Physics*, vol. 92, no.3/4, 559-569, 1998.
9. Mazza Christian Gauge symmetries and percolation in $+ - J$ Ising spin glasses. *Probability theory and related fields*, 113, 171-190, 1999.
10. Mazza Christian and Piau Didier. On the effect of selection in genetic algorithms. *Random structures and algorithms*, vol. 18, 185-200, 2001.
11. Mazza Christian and Piau Didier. Dubins Freedman processes and RC filters. *The Annals of Applied Probability*, vol.11, 1330-1352, 2001.
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14. Mazza Christian. Simply generated trees, B-series and Wigner processes. *Rand. Struct. Algo.* 25, No. 3, 293-310 (2004).
15. Christian Mazza and Didier Rullière. A link between wave governed random motions and ruin processes. *Insur. Math. Econ.* 35, No.2, 205-222 (2004).
16. Auderset Claude, Mazza Christian and Ruh Ernst. Angular Gaussian and Cauchy Estimation. *Journal of Multivariate Analysis*, 93, No.1, 180-197, 2005.
17. Alice Guionnet and Christian Mazza. Long time behaviour of the solution to a non-linear Kraichnan equation. *Probability Theory and Related Fields.* 131, No. 4, 493-518, 2005.
18. Mazza Christian. Strand separation in negatively supercoiled DNA. *Journal of Mathematical Biology.* 19 pages. Vol 50, 2005.
19. Yann Karlen, Alan McNair, Sébastien Perseguers, Christian Mazza and Nicolas Mermod. Statistical significance of quantitative PCR. *BMC Bioinformatics* 2007: 8:131 (20 april)
20. Amir Dembo, Alice Guionnet and Christian Mazza. Limiting Dynamics of Spherical Models of Spin Glasses at High Temperature. *Journal of Statistical Physics*, Vol. 126. Nos 4/5, 2007.
21. Martin Gander, Christian Mazza and H. Rummeler. Stochastic Gene Expression in Switching Environments. *Journal of Mathematical Biology.* 55: 249-269, (2007).
22. Stéphane Loisel, Christian Mazza and Didier Rullière. Robustness analysis of empirical finite-time ruin probabilities and estimation risk solvency margin. *Insurance, Mathematics and Economics* 42 (2008): 746-762.
23. Thomas Fournier, Jean-Pierre Gabriel, Christian Mazza, Jérôme Pasquier, José Galbete and Nicolas Mermod. Steady state expression of self-regulated genes. *Bioinformatics*, 23: 3185-3192, 2007.
24. Stéphane Loisel, Christian Mazza and Didier Rullière. Convergence and asymptotic variance of bootstrapped finite-time ruin probabilities with partly shifted risk processes. *Insurance, Mathematics and Economics.* 45 (2009) 374-381.
25. Thomas Fournier, Jean-Pierre Gabriel, Christian Mazza, Jérôme Pasquier, José Galbete and Nicolas Mermod. Stochastic models and numerical methods for regulatory gene networks. *Bulletin of Mathematical Biology*, DOI 10.1007/s11538-009-9407-0, 2009.

26. Clément Dombry and Christian Mazza. Some remarks on Betti numbers of random polygon spaces. arXiv: 0809.208v2. *Random Structures and Algorithms* 37(2010): 67-84.
27. R. Rohr, H. Scherer, P. Kehrli, C. Mazza and L-F. Bersier. Modeling Food Webs: Exploring Unexplained Structure Using Latent Traits. *The American Naturalist* 2010, Vol. 176, 170-177.
28. Clément Dombry, C. Mazza and V. Bansay. Phenotypic diversity and population growth in fluctuating environment: a MBPRE approach. *Advances in Applied Probability*, 2011 43: 375-398.
29. P. Lavenex, S. Lecci, V. Prêtre, C. Brandner, C. Mazza, V. Pasquier and P. Lavenex. As the world turn: Short-term human spatial memory in egocentric and allocentric coordinates. *Behavioural Brain Research*, 2011, Vol. 219: 132-141
30. Pjanic M. et al. Nuclear factor I revealed as family of promoter binding transcription activators. *BMC Genomics* 2011, Vol. 12: 181.
31. Grandjean M et al. High-level transgene expression by homologous recombination-mediated gene transfer. *Nucleic Acids Research*. 2011, Vol. 39: e104.
32. Feller, C., Gabriel J-P., Mazza, C. and Yerly F. Pattern formation in auxin flux. arXiv: 1110.4302v2 2011. *Journal of Mathematical Biology*, 2013. DOI 10.1007/S00285-013-0655-9
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36. Albuquerque Paul, Mazza Christian, Chopard Bastien and Tomassini Marco. On the impact of the representation of fitness landscapes. EuroGP 2000, Proc. Int'l Conf. on Genetic Programming, Edinburgh Scotland, UK, April 2000.

37. Leone Pierre, Rolim Jose, Albuquerque Paul and Mazza C. A Framework for probabilistic numerical evaluation of sensor networks: a case study of localization protocol. Proceedings of the WEA05 International Workshop on efficient and experimental algorithms, Santcrini, Greece 2005.