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Personal Information

Full Name

Alfredo Braunstein

Research Interests

Alfredo Braunstein earned his Ph.D. in mathematics from SISSA (Trieste) in 2005. His main interests are combinatorial optimization, inference and algorithms. He is also interested in the game of Go and in the subject of computer Go.

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http://staff.polito.it/alfredo.braunstein

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Altarelli F, Braunstein A, Dall'Asta L, Wakeling J, Zecchina R. Containing Epidemic Outbreaks by Message-Passing Techniques. Physical Review X. 2014;4(2). Tagged XML BibTex Google Scholar

Altarelli F, Braunstein A, Dall'Asta L, Lage-Castellanos A, Zecchina R. Bayesian Inference of Epidemics on Networks via Belief Propagation. Physical Review Letters. 2014;112(11). Tagged XML BibTex Google Scholar

Altarelli F, Braunstein A, Dall'Asta L, Ingrosso A, Zecchina R. The patient-zero problem with noisy observations. Journal of Statistical Mechanics: Theory and Experiment. 2014;2014(10):P10016. Tagged XML BibTex Google Scholar

Altarelli F, Braunstein A, Dall'Asta L, Ingrosso A, Zecchina R. The patient-zero problem with noisy observations. Journal of Statistical Mechanics: Theory and Experiment. 2014;2014:P10016. Tagged XML BibTex Google Scholar

2013

Altarelli F, Braunstein A, Dall'Asta L, Zecchina R. Large deviations of cascade processes on graphs. Phys. Rev. E. 2013;87:062115. Tagged XML BibTex Google Scholar

Molinelli EJ, Korkut A, Wang W, Miller ML, Gauthier NP, Jing X, et al. Perturbation Biology: Inferring Signaling Networks in Cellular Systems. PLoS

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Computational Biology. 2013;9(12):e1003290. Tagged XML BibTex Google Scholar

Baldassi C, Braunstein A, Zecchina R. Theory and learning protocols for the material tempotron model. Journal of Statistical Mechanics: Theory and Experiment. 2013;2013(12):P12013. Tagged XML BibTex Google Scholar

Altarelli F, Braunstein A, Dall'Asta L, Zecchina R. Optimizing spread dynamics on graphs by message passing. Journal of Statistical Mechanics: Theory and Experiment. 2013;2013(09):P09011. Tagged XML BibTex Google Scholar

Tuncbag N, Braunstein A, Pagnani A, Huang S-, Chayes J, Borgs C, et al. Simultaneous Reconstruction of Multiple Signaling Pathways via the Prize-Collecting Steiner Forest Problem. Journal of Computational Biology. 2013;20(2):124-36. Tagged XML BibTex Google Scholar

Altman RB, Dunker KA, Hunter L, Murray TA, Klein TE, Ritchie MD, et al. Sharing Information to reconstruct patient-specific pathways in heterogeneous diseases. In: Biocomputing 2014. WORLD SCIENTIFIC; 2013. p. 39-50. Tagged XML BibTex Google Scholar

2012

Biazzo I, Braunstein A, Zecchina R. Performance of a cavity-method-based algorithm for the prize-collecting Steiner tree problem on graphs. Phys. Rev. E. 2012;86:026706. Tagged XML BibTex Google Scholar

Alemi-Neissi A, Baldassi C, Braunstein A, Pagnani A, Zecchina R, Zoccolan D. Information theoretic and machine learning approaches to quantify non-linear visual feature interaction underlying visual object recognition. BMC Neuroscience. 2012;13:1-2. Tagged XML BibTex Google Scholar

Tuncbag N, Braunstein A, Pagnani A, Huang S-, Chayes J, Borgs C, et al. Simultaneous Reconstruction of Multiple Signaling Pathways via the Prize-Collecting Steiner Forest Problem. In: Chor B, editor. Research in Computational Molecular Biology. Vol 7262. Springer Berlin Heidelberg; 2012. p. 287-301. (Lecture Notes in Computer Science; vol 7262). Tagged XML BibTex Google Scholar

2011

Braunstein A, Kayhan F, Zecchina R. Efficient data compression from statistical physics of codes over finite fields. Phys. Rev. E. 2011;84:051111. Tagged XML BibTex Google Scholar

Braunstein A, Ramezanpour A, Zecchina R, Zhang P. Inference and learning in sparse systems with multiple states. Phys. Rev. E. 2011;83:056114. Tagged XML BibTex Google Scholar

Altarelli F, Braunstein A, Ramezanpour A, Zecchina R. Stochastic Matching Problem. Phys. Rev. Lett.. 2011;106:190601. Tagged XML BibTex Google Scholar

Altarelli F, Braunstein A, Ramezanpour A, Zecchina R. Stochastic optimization by message passing. JOURNAL OF STATISTICAL MECHANICS: THEORY AND EXPERIMENT. 2011;2011. Abstract Tagged XML BibTex Google Scholar

2010

Bradde S, Braunstein A, Mahmoudi H, Tria F, Weigt M, Zecchina R. Aligning graphs and finding substructures by a cavity approach. EPL (Europhysics Letters). 2010;89:37009. Abstract Tagged XML BibTex Google Scholar

Bailly-Bechet M, Borgs C, Braunstein A, Chayes J, Dagkessamanskaia A, François JM, et al. Finding undetected protein associations in cell signaling by belief propagation. Proceedings of the National Academy of Sciences. 2010;108(2):882-7. Abstract Tagged XML BibTex Google
Scholar Download: PNAS-2011-Bailly-Bechet-882-7.pdf (324.11 KB)

Bailly-Bechet M, Braunstein A, Pagnani A, Weigt M, Zecchina R. Inference of sparse combinatorial-control networks from gene-expression data: a message passing approach. BMC bioinformatics. 2010;11:355. Abstract Tagged XML BibTex Google Scholar

2009

Braunstein A, Kayhan F, Zecchina R. Efficient LDPC Codes over GF(q) for Lossy Data Compression. In: IEEE International Symposium on Information Theory,

2009. ISIT 2009. Seul, Korea; 2009. Abstract Tagged XML BibTex Google

Scholar Download: ISIT2009.pdf (814.41 KB)

Bailly-Bechet M, Bradde S, Braunstein A, Flaxman A, Foini L, Zecchina R. Clustering with shallow trees.

JSTAT. 2009:17pp. Abstract Tagged XML BibTex

Google Scholar

Bailly-Bechet M, Braunstein A, Zecchina R. A Prize-Collecting Steiner Tree Approach for Transduction Network Inference. In: Proceedings of the 7th International Conference on Computational Methods in Systems Biology. Springer; 2009. 95. Tagged XML BibTex Google Scholar

Altarelli F, Braunstein A, Realpe-Gomez J, Zecchina R. Statistical mechanics of budget-constrained auctions. Journal of Statistical Mechanics: Theory and Experiment. 2009;2009:P07002 (27pp). Abstract Tagged XML BibTex Google Scholar

2008

Braunstein A, Mulet R, Pagnani A. Estimating the size of the solution space of metabolic networks. BMC Bioinformatics. 2008;9:240. Abstract Tagged XML BibTex Google Scholar

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