# Pierluigi Contucci

## List of Publications by Citations



| | | | |
|---|---|---|---|
| 84 papers | 774 citations | 15 h-index | 23 g-index |
| 90 ext. papers | 841 ext. citations | 2.3 avg, IF | 4.36 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 84 | On the equivalence of Hopfield networks and Boltzmann Machines. *Neural Networks*, **2012**, 34, 1-9 | 9.1 | 74 |
| 83 | Modeling society with statistical mechanics: an application to cultural contact and immigration. *Quality and Quantity*, **2007**, 41, 569-578 | 2.4 | 41 |
| 82 | Spin-Glass Stochastic Stability: a Rigorous Proof. *Annales Henri Poincare*, **2005**, 6, 915-923 | 1.2 | 41 |
| 81 | Multi-Species Mean Field Spin Glasses. Rigorous Results. *Annales Henri Poincare*, **2015**, 16, 691-708 | 1.2 | 36 |
| 80 | PARAMETER EVALUATION OF A SIMPLE MEAN-FIELD MODEL OF SOCIAL INTERACTION. *Mathematical Models and Methods in Applied Sciences*, **2009**, 19, 1427-1439 | 3.5 | 36 |
| 79 | Ultrametricity in the Edwards-Anderson model. *Physical Review Letters*, **2007**, 99, 057206 | 7.4 | 30 |
| 78 | An analysis of a large dataset on immigrant integration in Spain. The statistical mechanics perspective on social action. *Scientific Reports*, **2014**, 4, 4174 | 4.9 | 29 |
| 77 | The Ghirlanda-Guerra Identities. *Journal of Statistical Physics*, **2007**, 126, 917-931 | 1.5 | 28 |
| 76 | PHASE TRANSITIONS IN SOCIAL SCIENCES: TWO-POPULATION MEAN FIELD THEORY. *International Journal of Modern Physics B*, **2008**, 22, 2199-2212 | 1.1 | 21 |
| 75 | Scaling Limits for Multi-species Statistical Mechanics Mean-Field Models. *Journal of Statistical Physics*, **2011**, 144, 1186-1205 | 1.5 | 20 |
| 74 | Overlap equivalence in the Edwards-Anderson model. *Physical Review Letters*, **2006**, 96, 217204 | 7.4 | 19 |
| 73 | Toward a quantitative approach to migrants integration. *Europhysics Letters*, **2010**, 89, 68001 | 1.6 | 17 |
| 72 | Thermodynamical Limit for Correlated Gaussian Random Energy Models. *Communications in Mathematical Physics*, **2003**, 236, 55-63 | 2 | 16 |
| 71 | Perspectives on Spin Glasses **2012**, | | 15 |
| 70 | Replica equivalence in the Edwards-Anderson model. *Journal of Physics A*, **2003**, 36, 10961-10966 | | 15 |
| 69 | Annealing and Replica-Symmetry in Deep Boltzmann Machines. *Journal of Statistical Physics*, **2020**, 180, 665-677 | 1.5 | 13 |
| 68 | Correlation Inequalities for Spin Glasses. *Annales Henri Poincare*, **2007**, 8, 1461-1467 | 1.2 | 13 |

| | | | |
|---|---|---|---|
| 67 | Inverse problem robustness for multi-species mean-field spin models. *Journal of Physics A: Mathematical and Theoretical*, **2013**, 46, 065001 | 2 | 12 |
| 66 | A stochastic approach for quantifying immigrant integration: the Spanish test case. *New Journal of Physics*, **2014**, 16, 103034 | 2.9 | 12 |
| 65 | Griffiths inequalities for the Gaussian spin glass. *Journal of Physics A*, **2004**, 37, L203-L209 | | 12 |
| 64 | Solution of the MonomerDimer Model on Locally Tree-Like Graphs. Rigorous Results. *Communications in Mathematical Physics*, **2014**, 331, 975-1003 | 2 | 11 |
| 63 | Enhancing participation to health screening campaigns by group interactions. *Scientific Reports*, **2015**, 5, 9904 | 4.9 | 11 |
| 62 | Correlation inequalities for quantum spin systems with quenched centered disorder. *Journal of Mathematical Physics*, **2010**, 51, 023302 | 1.2 | 11 |
| 61 | Monotonicity and Thermodynamic Limit for Short Range Disordered Models. *Journal of Statistical Physics*, **2004**, 115, 581-589 | 1.5 | 11 |
| 60 | Finite-Volume Excitations of the¶111 Interface in the Quantum XXZ Model. *Communications in Mathematical Physics*, **2000**, 212, 63-91 | 2 | 11 |
| 59 | PATH INTEGRAL REPRESENTATION FOR INTERFACE STATES OF THE ANISOTROPIC HEISENBERG MODEL. *Reviews in Mathematical Physics*, **2000**, 12, 1325-1344 | 1.2 | 11 |
| 58 | Antiferromagnetic Potts Model on the Erdš-Rényi Random Graph. *Communications in Mathematical Physics*, **2013**, 323, 517-554 | 2 | 10 |
| 57 | Structure of correlations in three dimensional spin glasses. *Physical Review Letters*, **2009**, 103, 017201 | 7.4 | 9 |
| 56 | A Mean-Field MonomerDimer Model with Randomness: Exact Solution and Rigorous Results. *Journal of Statistical Physics*, **2015**, 160, 1721-1732 | 1.5 | 8 |
| 55 | The exact solution of a mean-field monomer-dimer model with attractive potential. *Europhysics Letters*, **2014**, 106, 10001 | 1.6 | 8 |
| 54 | Stochastic Stability: A Review and Some Perspectives. *Journal of Statistical Physics*, **2010**, 138, 543-550 | 1.5 | 8 |
| 53 | Complexity and Interaction: Blurring Borders between Physical, Computational, and Social Systems. *Lecture Notes in Computer Science*, **2013**, 1-10 | 0.9 | 8 |
| 52 | Deep Boltzmann Machines: Rigorous Results at Arbitrary Depth. *Annales Henri Poincare*, **2021**, 22, 2619-2642 | 2.2 | 8 |
| 51 | A Diffusive Strategic Dynamics for Social Systems. *Journal of Statistical Physics*, **2010**, 139, 478-491 | 1.5 | 7 |
| 50 | Surface Terms on the Nishimori Line of the Gaussian Edwards-Anderson Model. *Journal of Statistical Physics*, **2006**, 122, 303-312 | 1.5 | 7 |

| | | | |
|---|---|---|---|
| 49 | THE THERMODYNAMIC LIMIT FOR FINITE DIMENSIONAL CLASSICAL AND QUANTUM DISORDERED SYSTEMS. *Reviews in Mathematical Physics*, **2004**, 16, 629-637 | 1.2 | 7 |
| 48 | The low activity phase of some Dirichlet series. *Journal of Mathematical Physics*, **1996**, 37, 5458-5475 | 1.2 | 7 |
| 47 | Factorization Properties in d-Dimensional Spin Glasses. Rigorous Results and Some Perspectives. *Journal of Statistical Physics*, **2013**, 151, 809-829 | 1.5 | 6 |
| 46 | Stability of the spin glass phase under perturbations. *Europhysics Letters*, **2011**, 96, 17003 | 1.6 | 6 |
| 45 | On the Surface Pressure for the Edwards-Anderson Model. *Communications in Mathematical Physics* , **2004**, 248, 207-216 | 2 | 6 |
| 44 | Factorization properties in the three-dimensional Edwards-Anderson model. *Physical Review B*, **2005**, 72, | 3.3 | 6 |
| 43 | Egalitarianism in the rank aggregation problem: a new dimension for democracy. *Quality and Quantity*, **2016**, 50, 1185-1200 | 2.4 | 5 |
| 42 | Social interaction effects on immigrant integration. *Palgrave Communications*, **2018**, 4, | 5.3 | 5 |
| 41 | Limit Theorems for Monomer–Dimer Mean-Field Models with Attractive Potential. *Communications in Mathematical Physics*, **2016**, 346, 781-799 | 2 | 5 |
| 40 | Aggregation models on hypergraphs. *Annals of Physics*, **2017**, 376, 412-424 | 2.5 | 4 |
| 39 | A Multi-scale Spin-Glass Mean-Field Model. *Communications in Mathematical Physics*, **2019**, 368, 1323-1344 | 2 | 4 |
| 38 | Equilibrium and dynamics of a multi-bath Sherrington–Kirkpatrick model. *Journal of Physics A: Mathematical and Theoretical*, **2019**, 52, 324001 | 2 | 4 |
| 37 | Interaction-Flip Identities in Spin Glasses. *Journal of Statistical Physics*, **2009**, 135, 1181-1203 | 1.5 | 4 |
| 36 | A Fully Magnetizing Phase Transition. *Journal of Statistical Physics*, **1999**, 97, 523-539 | 1.5 | 4 |
| 35 | How integrated are immigrants?. *Demographic Research*,33, 1271-1280 | 1 | 4 |
| 34 | The Solution of the Deep Boltzmann Machine on the Nishimori Line. *Communications in Mathematical Physics*, **2021**, 387, 1191-1214 | 2 | 4 |
| 33 | Inverse problem for the mean-field monomer-dimer model with attractive interaction. *Journal of Physics A: Mathematical and Theoretical*, **2017**, 50, 205002 | 2 | 3 |
| 32 | Dilution robustness for mean field ferromagnets. *Journal of Statistical Mechanics: Theory and Experiment*, **2009**, 2009, P03028 | 1.9 | 3 |

| | | | |
|---|---|---|---|
| 31 | Lack of monotonicity in spin glass correlation functions. *Journal of Physics A: Mathematical and Theoretical*, **2008**, 41, 385001 | 2 | 3 |
| 30 | Stochastically Stable Quenched Measures. *Journal of Statistical Physics*, **2004**, 117, 831-844 | 1.5 | 3 |
| 29 | Mean Field Behaviour of Spin Systems with Orthogonal Interaction Matrix. *Journal of Statistical Physics*, **2002**, 106, 895-914 | 1.5 | 3 |
| 28 | Griffiths Inequalities in the Nishimori Line. *Progress of Theoretical Physics Supplement*, **2005**, 157, 73-76 | | 3 |
| 27 | Ferromagnetic Heisenberg XXZ chain in a pinning field. *Physical Review B*, **2002**, 66, | 3.3 | 3 |
| 26 | Spin Glass Identities and the Nishimori Line **2009**, 103-121 | | 3 |
| 25 | Non-Gaussian fluctuations in monomer-dimer models. *Europhysics Letters*, **2016**, 114, 10006 | 1.6 | 3 |
| 24 | The Multi-species Mean-Field Spin-Glass on the Nishimori Line. *Journal of Statistical Physics*, **2021**, 182, 1 | 1.5 | 3 |
| 23 | New perspectives in the equilibrium statistical mechanics approach to social and economic sciences **2010**, 137-174 | | 3 |
| 22 | Forecasting the integration of immigrants. *Journal of Mathematical Sociology*, **2017**, 41, 127-137 | 1.2 | 2 |
| 21 | Interface Energy in the Edwards-Anderson Model. *Journal of Statistical Physics*, **2011**, 142, 1-10 | 1.5 | 2 |
| 20 | Contucci et al. Reply:. *Physical Review Letters*, **2008**, 100, | 7.4 | 2 |
| 19 | CONVEX REPLICA SYMMETRY BREAKING FROM POSITIVITY AND THERMODYNAMIC LIMIT. *International Journal of Modern Physics B*, **2004**, 18, 585-591 | 1.1 | 2 |
| 18 | FINDING MINIMA IN COMPLEX LANDSCAPES: ANNEALED, GREEDY AND RELUCTANT ALGORITHMS. *Mathematical Models and Methods in Applied Sciences*, **2005**, 15, 1349-1369 | 3.5 | 2 |
| 17 | Stationarization and Multithermalization in spin glasses. *SciPost Physics*, **2021**, 10, | 6.1 | 2 |
| 16 | Thermodynamic Limit for Spin Glasses. Beyond the Annealed Bound. *Journal of Statistical Physics*, **2009**, 135, 1159-1166 | 1.5 | 1 |
| 15 | Polynomial invariants for trees a statistical mechanics approach. *Discrete Applied Mathematics*, **1998**, 81, 225-237 | 1 | 1 |
| 14 | Interpolating greedy and reluctant algorithms. *Optimization Methods and Software*, **2005**, 20, 509-514 | 1.3 | 1 |

| | | | |
|---|---|---|---|
| 13 | An analyticity bound for two-dimensional Ising model at low temperature. *Journal of Statistical Physics*, **1996**, 82, 1647-1657 | 1.5 | 1 |
| 12 | On the strict inequality between quenched and annealed ising spin glass. *Letters in Mathematical Physics*, **1993**, 27, 143-147 | 1.2 | 1 |
| 11 | On a Statistical Mechanics Approach to Some Problems of the Social Sciences. *Frontiers in Physics*, **2020**, 8, | 3.9 | 1 |
| 10 | Egalitarianism vs. Utilitarianism in Preferential Voting. *Lecture Notes in Computer Science*, **2019**, 24-37 | 0.9 | 1 |
| 9 | Finite-size corrections for the attractive mean-field monomer-dimer model. *Journal of Physics A: Mathematical and Theoretical*, **2019**, 52, 105001 | 2 | |
| 8 | The lack of probability culture in Italy. Toward an international comparative research program. *Quality and Quantity*, **2015**, 49, 2325-2330 | 2.4 | |
| 7 | Dmitry Panchenko: The SherringtonKirkpatrick Model. *Journal of Statistical Physics*, **2013**, 153, 551-552 | 1.5 | |
| 6 | Interaction flip identities for non-centered spin glasses. *Journal of Mathematical Physics*, **2013**, 54, 073301 | 1.2 | |
| 5 | Introduction to Special Issue: Statistical Mechanics on Random Structures. *Journal of Mathematical Physics*, **2008**, 49, 125101 | 1.2 | |
| 4 | Mean-Field Monomer-Dimer Models. A Review. *Springer Proceedings in Mathematics and Statistics*, **2019**, 39-62 | 0.2 | |
| 3 | Equilibria of Culture Contact Derived from In-Group and Out-Group Attitudes **2010**, 81-88 | | |
| 2 | Tackling Climate Change Through Energy Efficiency: Mathematical Models to Offer Evidence-Based Recommendations for Public Policy **2010**, 131-146 | | |
| 1 | Human-AI ecosystem with abrupt changes as a function of the composition. *PLoS ONE*, **2022**, 17, e0267310 | 3.7 | |