# Michael Chertkov

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 194 papers | 5,668 citations | 37 h-index | 70 g-index |
| 226 ext. papers | 6,607 ext. citations | 4.2 avg, IF | 6.2 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 194 | Prediction and prevention of pandemics via graphical model inference and convex programming.. *Scientific Reports*, **2022**, 12, 7599 | 4.9 | |
| 193 | Which Neural Network to Choose for Post-Fault Localization, Dynamic State Estimation, and Optimal Measurement Placement in Power Systems?. *Frontiers in Big Data*, **2021**, 4, 692493 | 2.8 | |
| 192 | Data-Driven Learning and Load Ensemble Control. *Electric Power Systems Research*, **2020**, 189, 106780 | 3.5 | 3 |
| 191 | Mean-field control for efficient mixing of energy loads. *Physical Review E*, **2020**, 101, 022115 | 2.4 | 3 |
| 190 | Graphical Models in Meshed Distribution Grids: Topology Estimation, Change Detection & Limitations. *IEEE Transactions on Smart Grid*, **2020**, 11, 4299-4310 | 10.7 | 14 |
| 189 | Joint Estimation of Topology and Injection Statistics in Distribution Grids With Missing Nodes. *IEEE Transactions on Control of Network Systems*, **2020**, 7, 1391-1403 | 4 | 8 |
| 188 | Smarter Smart District Heating. *Proceedings of the IEEE*, **2020**, 108, 1596-1611 | 14.3 | 5 |
| 187 | Learning With End-Users in Distribution Grids: Topology and Parameter Estimation. *IEEE Transactions on Control of Network Systems*, **2020**, 7, 1428-1440 | 4 | 7 |
| 186 | A Hierarchical Approach to Multienergy Demand Response: From Electricity to Multienergy Applications. *Proceedings of the IEEE*, **2020**, 108, 1457-1474 | 14.3 | 12 |
| 185 | Learning model of generator from terminal data. *Electric Power Systems Research*, **2020**, 189, 106742 | 3.5 | 0 |
| 184 | Gauges, loops, and polynomials for partition functions of graphical models. *Journal of Statistical Mechanics: Theory and Experiment*, **2020**, 2020, 124006 | 1.9 | |
| 183 | Tractable minor-free generalization of planar zero-field Ising models. *Journal of Statistical Mechanics: Theory and Experiment*, **2020**, 2020, 124007 | 1.9 | |
| 182 | Physics informed topology learning in networks of linear dynamical systems. *Automatica*, **2020**, 112, 108705 | 5.7 | 4 |
| 181 | Multienergy Systems. *Proceedings of the IEEE*, **2020**, 108, 1387-1391 | 14.3 | 3 |
| 180 | . *IEEE Transactions on Power Systems*, **2020**, 35, 1663-1673 | 7 | 21 |
| 179 | **2019**, | | 4 |
| 178 | Learning from power system data stream **2019**, | | 1 |

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| 177 | Constraining Fission Yields Using Machine Learning. *EPJ Web of Conferences*, **2019**, 211, 04006 | 0.3 | 3 |
| 176 | Real-Time Faulted Line Localization and PMU Placement in Power Systems Through Convolutional Neural Networks. *IEEE Transactions on Power Systems*, **2019**, 34, 4640-4651 | 7 | 40 |
| 175 | Towards future infrastructures for sustainable multi-energy systems: A review. *Energy*, **2019**, 184, 2-21 | 7.9 | 80 |
| 174 | Power of Ensemble Diversity and Randomization for Energy Aggregation. *Scientific Reports*, **2019**, 9, 5910 | 4.9 | 3 |
| 173 | Operations- and Uncertainty-Aware Installation of FACTS Devices in a Large Transmission System. *IEEE Transactions on Control of Network Systems*, **2019**, 6, 961-970 | 4 | 6 |
| 172 | Importance sampling the union of rare events with an application to power systems analysis. *Electronic Journal of Statistics*, **2019**, 13, | 1.2 | 8 |
| 171 | Polynomial Chaos Approach to Describe the Propagation of Uncertainties Through Gas Networks. *Mathematics in Industry*, **2019**, 59-65 | 0.2 | |
| 170 | A Markov Process Approach to Ensemble Control of Smart Buildings **2019**, | | 5 |
| 169 | Gauging variational inference. *Journal of Statistical Mechanics: Theory and Experiment*, **2019**, 2019, 124015 | 1.9 | |
| 168 | Bucket renormalization for approximate inference. *Journal of Statistical Mechanics: Theory and Experiment*, **2019**, 2019, 124022 | 1.9 | |
| 167 | Optimal Load Ensemble Control in Chance-Constrained Optimal Power Flow. *IEEE Transactions on Smart Grid*, **2019**, 10, 5186-5195 | 10.7 | 20 |
| 166 | Thermal Transients in District Heating Systems. *Energy*, **2019**, 184, 22-33 | 7.9 | 27 |
| 165 | Optimal structure and parameter learning of Ising models. *Science Advances*, **2018**, 4, e1700791 | 14.3 | 26 |
| 164 | . *IEEE Transactions on Information Theory*, **2018**, 64, 1471-1480 | 2.8 | 1 |
| 163 | . *IEEE Transactions on Control of Network Systems*, **2018**, 5, 1061-1074 | 4 | 76 |
| 162 | Graphical Models and Belief Propagation Hierarchy for Physics-Constrained Network Flows. *The IMA Volumes in Mathematics and Its Applications*, **2018**, 223-250 | 0.5 | |
| 161 | Ensemble Control of Cycling Energy Loads: Markov Decision Approach. *The IMA Volumes in Mathematics and Its Applications*, **2018**, 363-382 | 0.5 | 9 |
| 160 | Topology Learning in Radial Distribution Grids **2018**, 261-279 | | 1 |

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| 159 | Online Learning of Power Transmission Dynamics **2018**, | | 2 |
| 158 | Structure- and Physics-Preserving Reductions of Power Grid Models. *Multiscale Modeling and Simulation*, **2018**, 16, 1916-1947 | 1.8 | 0 |
| 157 | Optimal Ensemble Control of Loads in Distribution Grids with Network Constraints **2018**, | | 8 |
| 156 | Exact Topology and Parameter Estimation in Distribution Grids with Minimal Observability **2018**, | | 26 |
| 155 | Chance-Constrained ADMM Approach for Decentralized Control of Distributed Energy Resources **2018**, | | 16 |
| 154 | Coordinated Scheduling for Interdependent Electric Power and Natural Gas Infrastructures. *IEEE Transactions on Power Systems*, **2017**, 32, 600-610 | 7 | 132 |
| 153 | Operator splitting method for simulation of dynamic flows in natural gas pipeline networks. *Physica D: Nonlinear Phenomena*, **2017**, 361, 1-11 | 3.3 | 15 |
| 152 | Learning Exact Topology of a Loopy Power Grid from Ambient Dynamics **2017**, | | 4 |
| 151 | Ensemble of Thermostatically Controlled Loads: Statistical Physics Approach. *Scientific Reports*, **2017**, 7, 8673 | 4.9 | 12 |
| 150 | Coordinated scheduling for interdependent electric power and natural gas infrastructures **2017**, | | 2 |
| 149 | Graphical models for optimal power flow. *Constraints*, **2017**, 22, 24-49 | 0.3 | 9 |
| 148 | Chance constrained optimal power flow with primary frequency response **2017**, | | 2 |
| 147 | Adiabatic approach for natural gas pipeline computations **2017**, | | 1 |
| 146 | Uncertainty Sets for Wind Power Generation. *IEEE Transactions on Power Systems*, **2016**, 31, 3326-3327 | 7 | 54 |
| 145 | Control policies for operational coordination of electric power and natural gas transmission systems **2016**, | | 12 |
| 144 | Optimal power flow with wind power control and limited expected risk of overloads **2016**, | | 8 |
| 143 | Estimating distribution grid topologies: A graphical learning based approach **2016**, | | 32 |
| 142 | Learning topology of the power distribution grid with and without missing data **2016**, | | 12 |

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| 141 | Monotonicity of actuated flows on dissipative transport networks **2016**, | | 6 |
| 140 | Linear PDEs and eigenvalue problems corresponding to ergodic stochastic optimization problems on compact manifolds. *Journal of Statistical Mechanics: Theory and Experiment*, **2016**, 2016, 013206 | 1.9 | 3 |
| 139 | Assessing Risk of Gas Shortage in Coupled Gas-Electricity Infrastructures **2016**, | | 3 |
| 138 | Tractable structure learning in radial physical flow networks **2016**, | | 4 |
| 137 | Learning topology of distribution grids using only terminal node measurements **2016**, | | 21 |
| 136 | Monotone operator approach to power flow solutions **2016**, | | 2 |
| 135 | Extreme-value statistics of work done in stretching a polymer in a gradient flow. *Physical Review E*, **2015**, 91, 022123 | 2.4 | 1 |
| 134 | Fault-induced delayed voltage recovery in a long inhomogeneous power-distribution feeder. *Physical Review E*, **2015**, 91, 022812 | 2.4 | 0 |
| 133 | Optimal Compression in Natural Gas Networks: A Geometric Programming Approach. *IEEE Transactions on Control of Network Systems*, **2015**, 2, 47-56 | 4 | 44 |
| 132 | Pressure Fluctuations in Natural Gas Networks Caused by Gas-Electric Coupling **2015**, | | 14 |
| 131 | Cascading of fluctuations in interdependent energy infrastructures: Gas-grid coupling. *Applied Energy*, **2015**, 160, 541-551 | 10.7 | 60 |
| 130 | Convexity of structure preserving energy functions in power transmission: Novel results and applications **2015**, | | 2 |
| 129 | Optimal Power Flow with Weighted chance constraints and general policies for generation control **2015**, | | 18 |
| 128 | Monotonicity of dissipative flow networks renders robust maximum profit problem tractable: General analysis and application to natural gas flows **2015**, | | 12 |
| 127 | Model Reduction and Optimization of Natural Gas Pipeline Dynamics **2015**, | | 14 |
| 126 | A differential analysis of the power flow equations **2015**, | | 10 |
| 125 | Optimal control of transient flow in natural gas networks **2015**, | | 36 |
| 124 | Temperature-based instanton analysis: Identifying vulnerability in transmission networks **2015**, | | 3 |

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| 123 | Chance-Constrained Optimal Power Flow: Risk-Aware Network Control under Uncertainty. *SIAM Review*, **2014**, 56, 461-495 | 7.4 | 239 |
| 122 | Sparsity-Promoting Optimal Wide-Area Control of Power Networks. *IEEE Transactions on Power Systems*, **2014**, 29, 2281-2291 | 7 | 128 |
| 121 | Stochastic optimal control as non-equilibrium statistical mechanics: calculus of variations over density and current. *Journal of Physics A: Mathematical and Theoretical*, **2014**, 47, 022001 | 2 | 13 |
| 120 | Storage Sizing and Placement through Operational and Uncertainty-Aware Simulations **2014**, | | 16 |
| 119 | Efficient algorithm for locating and sizing series compensation devices in large power transmission grids: II. Solutions and applications. *New Journal of Physics*, **2014**, 16, 105016 | 2.9 | 6 |
| 118 | . *IEEE Transactions on Energy Conversion*, **2014**, 29, 968-977 | 5.4 | 161 |
| 117 | Efficient algorithm for locating and sizing series compensation devices in large power transmission grids: I. Model implementation. *New Journal of Physics*, **2014**, 16, 105015 | 2.9 | 4 |
| 116 | Synchronization-aware and algorithm-efficient chance constrained optimal power flow **2013**, | | 7 |
| 115 | Synchronization in complex oscillator networks and smart grids. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 2005-10 | 11.5 | 538 |
| 114 | Hysteresis, phase transitions, and dangerous transients in electrical power distribution systems. *Physical Review E*, **2013**, 87, 062802 | 2.4 | 3 |
| 113 | Sparse and optimal wide-area damping control in power networks **2013**, | | 21 |
| 112 | Getting a grip on the electrical grid. *Physics Today*, **2013**, 66, 42-48 | 0.9 | 22 |
| 111 | Robust modeling of probabilistic uncertainty in smart Grids: Data ambiguous Chance Constrained Optimum Power Flow **2013**, | | 6 |
| 110 | Improved linear programming decoding using frustrated cycles **2013**, | | 2 |
| 109 | Loop calculus and bootstrap-belief propagation for perfect matchings on arbitrary graphs. *Journal of Physics: Conference Series*, **2013**, 473, 012007 | 0.3 | 1 |
| 108 | **2012**, | | 14 |
| 107 | Distributed control of generation in a transmission grid with a high penetration of renewables **2012** , | | 3 |
| 106 | Synchronization assessment in power networks and coupled oscillators **2012**, | | 7 |

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|---|---|---|---|
| 105 | DistFlow ODE: Modeling, analyzing and controlling long distribution feeder **2012**, | | 11 |
| 104 | **2011**, | | 18 |
| 103 | Counting Independent Sets Using the Bethe Approximation. *SIAM Journal on Discrete Mathematics*, **2011**, 25, 1012-1034 | 0.7 | 14 |
| 102 | Options for Control of Reactive Power by Distributed Photovoltaic Generators. *Proceedings of the IEEE*, **2011**, 99, 1063-1073 | 14.3 | 423 |
| 101 | Predicting Failures in Power Grids: The Case of Static Overloads. *IEEE Transactions on Smart Grid*, **2011**, 2, 162-172 | 10.7 | 52 |
| 100 | . *IEEE Transactions on Information Theory*, **2011**, 57, 4417-4426 | 2.8 | 10 |
| 99 | Statistical classification of cascading failures in power grids **2011**, | | 7 |
| 98 | Irreversible Monte Carlo algorithms for efficient sampling. *Physica D: Nonlinear Phenomena*, **2011**, 240, 410-414 | 3.3 | 57 |
| 97 | The geometric universality of currents. *Journal of Statistical Mechanics: Theory and Experiment*, **2011**, 2011, P09006 | 1.9 | 11 |
| 96 | Linear programming based detectors for two-dimensional intersymbol interference channels **2011**, | | 3 |
| 95 | Polytope of correct (linear programming) decoding and low-weight pseudo-codewords **2011**, | | 5 |
| 94 | **2011**, | | 6 |
| 93 | Universal velocity profile for coherent vortices in two-dimensional turbulence. *Physical Review E*, **2010**, 81, 015302 | 2.4 | 8 |
| 92 | A majorization-minimization approach to design of power transmission networks **2010**, | | 8 |
| 91 | Worst configurations (instantons) for Compressed Sensing over reals: A channel coding approach **2010**, | | 2 |
| 90 | Inference in particle tracking experiments by passing messages between images. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 7663-8 | 11.5 | 28 |
| 89 | Planar graphical models which are easy. *Journal of Statistical Mechanics: Theory and Experiment*, **2010**, 2010, P11007 | 1.9 | 4 |
| 88 | Distributed control of reactive power flow in a radial distribution circuit with high photovoltaic penetration **2010**, | | 118 |

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| 87 | Local Control of Reactive Power by Distributed Photovoltaic Generators **2010**, | | 89 |
| 86 | Robust Broadcast-Communication Control of Electric Vehicle Charging **2010**, | | 48 |
| 85 | Belief propagation and loop calculus for the permanent of a non-negative matrix. *Journal of Physics A: Mathematical and Theoretical*, **2010**, 43, 242002 | 2 | 10 |
| 84 | Non-Equilibrium Statistical Physics of Currents in Queuing Networks. *Journal of Statistical Physics*, **2010**, 140, 819-845 | 1.5 | 12 |
| 83 | Message passing for optimization and control of a power grid: model of a distribution system with redundancy. *Physical Review E*, **2009**, 80, 046112 | 2.4 | 10 |
| 82 | Orbit-product representation and correction of Gaussian belief propagation **2009**, | | 3 |
| 81 | Self-similarity and universality in Rayleigh□Taylor, Boussinesq turbulence. *Physics of Fluids*, **2009**, 21, 015102 | 4.4 | 51 |
| 80 | Non-Equilibrium Thermodynamics and Topology of Currents. *Journal of Statistical Physics*, **2009**, 137, 109-147 | 1.5 | 21 |
| 79 | Instanton-based techniques for analysis and reduction of error floors of LDPC codes. *IEEE Journal on Selected Areas in Communications*, **2009**, 27, 855-865 | 14.2 | 23 |
| 78 | **2009**, | | 4 |
| 77 | Reactive Rayleigh□Taylor turbulence. *Journal of Fluid Mechanics*, **2009**, 633, 1-16 | 3.7 | 20 |
| 76 | An Efficient Pseudocodeword Search Algorithm for Linear Programming Decoding of LDPC Codes. *IEEE Transactions on Information Theory*, **2008**, 54, 1514-1520 | 2.8 | 29 |
| 75 | Fermions and loops on graphs: I. Loop calculus for determinants. *Journal of Statistical Mechanics: Theory and Experiment*, **2008**, 2008, P12011 | 1.9 | 5 |
| 74 | Fermions and loops on graphs: II. A monomer□dimer model as a series of determinants. *Journal of Statistical Mechanics: Theory and Experiment*, **2008**, 2008, P12012 | 1.9 | 4 |
| 73 | Exactness of belief propagation for some graphical models with loops. *Journal of Statistical Mechanics: Theory and Experiment*, **2008**, 2008, P10016 | 1.9 | 4 |
| 72 | Belief propagation and loop series on planar graphs. *Journal of Statistical Mechanics: Theory and Experiment*, **2008**, 2008, P05003 | 1.9 | 6 |
| 71 | Pseudo-codeword Landscape **2007**, | | 21 |
| 70 | Strong effect of weak diffusion on scalar turbulence at large scales. *Physics of Fluids*, **2007**, 19, 101703 | 4.4 | 5 |

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| 69 | Loop Calculus and Belief Propagation for q-ary Alphabet: Loop Tower **2007**, | | 8 |
| 68 | Statistical geometry in homogeneous and isotropic turbulence. *Journal of Turbulence*, **2007**, 8, N39 | 2.1 | 13 |
| 67 | Dynamics of energy condensation in two-dimensional turbulence. *Physical Review Letters*, **2007**, 99, 084501 | 7.4 | 108 |
| 66 | Reducing the Error Floor **2007**, | | 12 |
| 65 | Statistics of entropy production in linearized stochastic systems. *Physical Review Letters*, **2007**, 98, 180603 | 7.4 | 20 |
| 64 | Loop series for discrete statistical models on graphs. *Journal of Statistical Mechanics: Theory and Experiment*, **2006**, 2006, P06009-P06009 | 1.9 | 71 |
| 63 | Loop calculus in statistical physics and information science. *Physical Review E*, **2006**, 73, 065102 | 2.4 | 47 |
| 62 | Path-integral analysis of fluctuation theorems for general Langevin processes. *Journal of Statistical Mechanics: Theory and Experiment*, **2006**, 2006, P08001-P08001 | 1.9 | 137 |
| 61 | Instanton analysis of Low-Density Parity-Check codes in the error-floor regime **2006**, | | 22 |
| 60 | Scale dependence of the coarse-grained velocity derivative tensor: Influence of large-scale shear on small-scale turbulence. *Journal of Turbulence*, **2006**, 7, N41 | 2.1 | 13 |
| 59 | Polymer statistics in a random flow with mean shear. *Journal of Fluid Mechanics*, **2005**, 531, 251-260 | 3.7 | 66 |
| 58 | Dynamical generalization of nonequilibrium work relation. *Physical Review E*, **2005**, 71, 025102 | 2.4 | 22 |
| 57 | Thermal behaviour of induction motors under different speeds. *IET Electric Power Applications*, **2005**, 152, 1307 | | 1 |
| 56 | Effects of surface tension on immiscible Rayleigh-Taylor turbulence. *Physical Review E*, **2005**, 71, 055301 | 2.4 | 17 |
| 55 | Diagnosis of weaknesses in modern error correction codes: a physics approach. *Physical Review Letters*, **2005**, 95, 228701 | 7.4 | 26 |
| 54 | Outage probability for soliton transmission. *Europhysics Letters*, **2004**, 66, 499-505 | 1.6 | 1 |
| 53 | Error correction on a tree: an instanton approach. *Physical Review Letters*, **2004**, 93, 198702 | 7.4 | 12 |
| 52 | Inelastic interchannel collisions of pulses in optical fibers in the presence of third-order dispersion. *Journal of the Optical Society of America B: Optical Physics*, **2004**, 21, 18 | 1.7 | 19 |

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|---|---|---|---|
| 51 | Periodic compensation of polarization mode dispersion. *Journal of the Optical Society of America B: Optical Physics*, **2004**, 21, 486 | 1.7 | 3 |
| 50 | . *Journal of Lightwave Technology*, **2004**, 22, 1155-1168 | 4 | 14 |
| 49 | Periodic and quasi-periodic compensation strategies of extreme outages caused by polarization mode dispersion and amplifier noise. *JETP Letters*, **2003**, 78, 198-201 | 1.2 | 1 |
| 48 | Interchannel interaction of optical solitons. *Physical Review E*, **2003**, 68, 026605 | 2.4 | 19 |
| 47 | Extreme outages caused by polarization mode dispersion. *Optics Letters*, **2003**, 28, 2159-61 | 3 | 2 |
| 46 | Compensation for extreme outages caused by polarization mode dispersion and amplifier noise. *Optics Express*, **2003**, 11, 1607-12 | 3.3 | 4 |
| 45 | Boundary effects on chaotic advection-diffusion chemical reactions. *Physical Review Letters*, **2003**, 90, 134501 | 7.4 | 22 |
| 44 | Probability of anomalously large bit-error rate in long haul optical transmission. *Physical Review E*, **2003**, 68, 066619 | 2.4 | 1 |
| 43 | Shedding and interaction of solitons in weakly disordered optical fibers. *Physical Review E*, **2003**, 67, 036615 | 2.4 | 20 |
| 42 | Phenomenology of Rayleigh-Taylor turbulence. *Physical Review Letters*, **2003**, 91, 115001 | 7.4 | 107 |
| 41 | Decay of scalar turbulence revisited. *Physical Review Letters*, **2003**, 90, 034501 | 7.4 | 43 |
| 40 | Pinning method of pulse confinement in optical fiber with random dispersion. *Journal of the Optical Society of America B: Optical Physics*, **2002**, 19, 2538 | 1.7 | 15 |
| 39 | Shedding and interaction of solitons in imperfect medium. *JETP Letters*, **2001**, 74, 357-361 | 1.2 | 7 |
| 38 | Solitons in a disordered anisotropic optical medium. *JETP Letters*, **2001**, 74, 535-538 | 1.2 | 6 |
| 37 | Pulse confinement in optical fibers with random dispersion. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 14208-11 | 11.5 | 15 |
| 36 | The Lagrangian view of energy transfer in turbulent flow. *Europhysics Letters*, **2001**, 56, 379-385 | 1.6 | 34 |
| 35 | Turbulence in Polymer Solutions. *Fluid Mechanics and Its Applications*, **2001**, 313-318 | 0.2 | |
| 34 | Geometry of Lagrangian dispersion in turbulence. *Physical Review Letters*, **2000**, 85, 5324-7 | 7.4 | 80 |

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|---|---|---|---|
| 33 | Polymer stretching by turbulence. *Physical Review Letters*, **2000**, 84, 4761-4 | 7.4 | 81 |
| 32 | Experimental method for synthesis of generalized thermal circuit of polyphase induction motors. *IEEE Transactions on Energy Conversion*, **2000**, 15, 264-268 | 5.4 | 16 |
| 31 | Optimal capacitor allocation in distribution systems using a genetic algorithm and a fast energy loss computation technique. *IEEE Transactions on Power Delivery*, **2000**, 15, 623-628 | 4.3 | 98 |
| 30 | Lagrangian tetrad dynamics and the phenomenology of turbulence. *Physics of Fluids*, **1999**, 11, 2394-2410 | 4.4 | 165 |
| 29 | Small-Scale Turbulent Dynamo. *Physical Review Letters*, **1999**, 83, 4065-4068 | 7.4 | 75 |
| 28 | Heat conditions of a three-phase induction motor by a one-phase supply. *IET Electric Power Applications*, **1999**, 146, 361 | | 9 |
| 27 | Passive advection in nonlinear medium. *Physics of Fluids*, **1999**, 11, 2257-2262 | 4.4 | 12 |
| 26 | On how a joint interaction of two innocent partners (smooth advection and linear damping) produces a strong intermittency. *Physics of Fluids*, **1998**, 10, 3017-3019 | 4.4 | 24 |
| 25 | Inverse versus Direct Cascades in Turbulent Advection. *Physical Review Letters*, **1998**, 80, 512-515 | 7.4 | 45 |
| 24 | Propagation of a Huygens Front Through Turbulent Medium. *Physical Review Letters*, **1998**, 80, 2837-2840 | 7.4 | 16 |
| 23 | Intermittent Dissipation of a Passive Scalar in Turbulence. *Physical Review Letters*, **1998**, 80, 2121-2124 | 7.4 | 55 |
| 22 | Inverse cascade and intermittency of passive scalar in one-dimensional smooth flow. *Physical Review E*, **1997**, 56, 5483-5499 | 2.4 | 37 |
| 21 | Instanton for random advection. *Physical Review E*, **1997**, 55, 2722-2735 | 2.4 | 66 |
| 20 | Anomalous scaling exponents of a white-advected passive scalar. *Physical Review Letters*, **1996**, 76, 2706-2709 | 7.4 | 115 |
| 19 | Nonuniversality of the scaling exponents of a passive scalar convected by a random flow. *Physical Review Letters*, **1996**, 76, 3707-3710 | 7.4 | 46 |
| 18 | THEORY OF RANDOM ADVECTION IN TWO DIMENSIONS. *International Journal of Modern Physics B*, **1996**, 10, 2273-2309 | 1.1 | 4 |
| 17 | Normal and anomalous scaling of the fourth-order correlation function of a randomly advected passive scalar. *Physical Review E*, **1995**, 52, 4924-4941 | 2.4 | 222 |
| 16 | Equilibrium dynamics of a paramagnetic cluster. *Physical Review B*, **1995**, 51, 3974-3977 | 3.3 | 11 |

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| 15 | Statistics of a passive scalar advected by a large-scale two-dimensional velocity field: Analytic solution. *Physical Review E*, **1995**, 51, 5609-5627 | 2.4 | 116 |
| 14 | Passive scalar convection in a 2D long-range delta-correlated velocity field: Exact results. *Journal of Physics A*, **1994**, 27, 4925-4932 | | 4 |
| 13 | Long-time dynamics of the infinite-temperature Heisenberg magnet. *Physical Review B*, **1994**, 49, 3592-3595 | 3.3 | 6 |
| 12 | Structural instability of two-dimensional turbulence. *Physica D: Nonlinear Phenomena*, **1994**, 78, 11-29 | 3.3 | |
| 11 | Exact field-theoretical description of passive scalar convection in an N-dimensional long-range velocity field. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1994**, 192, 435-443 | 2.3 | 19 |
| 10 | DETERMINATION OF HEAT STATE OF NORMAL LOAD INDUCTION MOTORS BY A NO□OAD TEST RUN. *Electric Power Components and Systems*, **1993**, 21, 355-369 | | 6 |
| 9 | Functional integral and effective Hamiltonian t-J-V model of strongly correlated electron system. *Journal of Statistical Physics*, **1992**, 69, 231-245 | 1.5 | 2 |
| 8 | Instanton method of post-error-correction analytical evaluation | | 6 |
| 7 | Synchronization in Complex Oscillator Networks and Smart Grids | | 14 |
| 6 | Chance Constrained Optimal Power Flow: Risk-Aware Network Control under Uncertainty | | 5 |
| 5 | Structure Learning and Statistical Estimation in Distribution Networks - Part II | | 6 |
| 4 | Structure Learning and Statistical Estimation in Distribution Networks - Part I | | 14 |
| 3 | Solving the power flow equations: a monotone operator approach | | 11 |
| 2 | Structure Learning in Power Distribution Networks | | 7 |
| 1 | Graphical Models of Pandemic | | 3 |