

Peter J Mucha

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

3,764
citations

236925

25
h-index

138484

58
g-index

62
all docs

62
docs citations

62
times ranked

4241
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Comparing transmission potential networks based on social network surveys, close contacts and environmental overlap in rural Madagascar. <i>Journal of the Royal Society Interface</i> , 2022, 19, 20210690. | 3.4 | 7 |
| 2 | A bipartite graph-based expected networks approach identifies DDR genes not associated with TMB yet predictive of immune checkpoint blockade response. <i>Cell Reports Medicine</i> , 2022, 3, 100602. | 6.5 | 1 |
| 3 | A Simultaneous Feature Selection and Compositional Association Test for Detecting Sparse Associations in High-Dimensional Metagenomic Data. <i>Frontiers in Microbiology</i> , 2022, 13, 837396. | 3.5 | 4 |
| 4 | Positive psychological states and stress responses in caregivers of adults receiving an allogeneic bone marrow transplant: A study protocol. <i>Journal of Advanced Nursing</i> , 2021, 77, 2073-2084. | 3.3 | 1 |
| 5 | Accrual of functional redundancy along the lifespan and its effects on cognition. <i>NeuroImage</i> , 2021, 229, 117737. | 4.2 | 17 |
| 6 | Synchronization of coupled Kuramoto oscillators under resource constraints. <i>Physical Review E</i> , 2021, 104, 014211. | 2.1 | 5 |
| 7 | Optimizing Emergency Stroke Transport Strategies Using Physiological Models. <i>Stroke</i> , 2021, 52, 4010-4020. | 2.0 | 2 |
| 8 | The association between hippocampal volume and memory in pathological aging is mediated by functional redundancy. <i>Neurobiology of Aging</i> , 2021, 108, 179-188. | 3.1 | 11 |
| 9 | Lower functional hippocampal redundancy in mild cognitive impairment. <i>Translational Psychiatry</i> , 2021, 11, 61. | 4.8 | 17 |
| 10 | Network Interconnectivity and Community Detection in HIV/Syphilis Contact Networks Among Men Who Have Sex With Men. <i>Sexually Transmitted Diseases</i> , 2020, 47, 726-732. | 1.7 | 3 |
| 11 | The emergence of a functionally flexible brain during early infancy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 23904-23913. | 7.1 | 36 |
| 12 | Dynamics of social network emergence explain network evolution. <i>Scientific Reports</i> , 2020, 10, 21876. | 3.3 | 2 |
| 13 | Fecal IgA, Antigen Absorption, and Gut Microbiome Composition Are Associated With Food Antigen Sensitization in Genetically Susceptible Mice. <i>Frontiers in Immunology</i> , 2020, 11, 599637. | 4.8 | 20 |
| 14 | Map equation with metadata: Varying the role of attributes in community detection. <i>Physical Review E</i> , 2019, 100, 022301. | 2.1 | 12 |
| 15 | EndNote: Feature-based classification of networks. <i>Network Science</i> , 2019, 7, 438-444. | 1.0 | 10 |
| 16 | Social clustering in epidemic spread on coevolving networks. <i>Physical Review E</i> , 2019, 99, 062301. | 2.1 | 11 |
| 17 | Infectivity enhances prediction of viral cascades in Twitter. <i>PLoS ONE</i> , 2019, 14, e0214453. | 2.5 | 2 |
| 18 | Emotion semantics show both cultural variation and universal structure. <i>Science</i> , 2019, 366, 1517-1522. | 12.6 | 177 |

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|----|--|------|-----------|
| 19 | Concurrency and reachability in treelike temporal networks. <i>Physical Review E</i> , 2019, 100, 062305. | 2.1 | 7 |
| 20 | Assessing the robustness of cluster solutions obtained from sparse count matrices.. <i>Psychological Methods</i> , 2019, 24, 675-689. | 3.5 | 12 |
| 21 | Metabolomic networks connect host-microbiome processes to human <i>Clostridioides difficile</i> infections. <i>Journal of Clinical Investigation</i> , 2019, 129, 3792-3806. | 8.2 | 70 |
| 22 | Evolutionary prisonerâ€™s dilemma games coevolving on adaptive networks. <i>Journal of Complex Networks</i> , 2018, 6, 1-23. | 1.8 | 14 |
| 23 | Epidemic spreading in localized environments with recurrent mobility patterns. <i>Physical Review E</i> , 2018, 97, 052302. | 2.1 | 36 |
| 24 | Network-Ensemble Comparisons with Stochastic Rewiring and Von Neumann Entropy. <i>SIAM Journal on Applied Mathematics</i> , 2018, 78, 897-920. | 1.8 | 6 |
| 25 | Rigid Graph Compression: Motif-Based Rigidity Analysis for Disordered Fiber Networks. <i>Multiscale Modeling and Simulation</i> , 2018, 16, 1283-1304. | 1.6 | 3 |
| 26 | Functional classification of long non-coding RNAs by k-mer content. <i>Nature Genetics</i> , 2018, 50, 1474-1482. | 21.4 | 198 |
| 27 | Compressing Networks with Super Nodes. <i>Scientific Reports</i> , 2018, 8, 10892. | 3.3 | 22 |
| 28 | A local perspective on community structure in multilayer networks. <i>Network Science</i> , 2017, 5, 144-163. | 1.0 | 42 |
| 29 | Eigenvector-Based Centrality Measures for Temporal Networks. <i>Multiscale Modeling and Simulation</i> , 2017, 15, 537-574. | 1.6 | 120 |
| 30 | Scientific Training in the Era of Big Data: A New Pedagogy for Graduate Education. <i>Big Data</i> , 2017, 5, 12-18. | 3.4 | 14 |
| 31 | Super-Resolution Community Detection for Layer-Aggregated Multilayer Networks. <i>Physical Review X</i> , 2017, 7, . | 8.9 | 16 |
| 32 | The scaling structure of the global road network. <i>Royal Society Open Science</i> , 2017, 4, 170590. | 2.4 | 26 |
| 33 | Erratum to â€œEvolutionary prisonerâ€™s dilemma games coevolving on adaptive networkâ€. <i>Journal of Complex Networks</i> , 2017, 5, 964-964. | 1.8 | 1 |
| 34 | Spatiotemporal patterns and trends of Indian monsoonal rainfall extremes. <i>Geophysical Research Letters</i> , 2016, 43, 1710-1717. | 4.0 | 71 |
| 35 | Transitivity reinforcement in the coevolving voter model. <i>Chaos</i> , 2016, 26, 123112. | 2.5 | 12 |
| 36 | Clustering Network Layers with the Strata Multilayer Stochastic Block Model. <i>IEEE Transactions on Network Science and Engineering</i> , 2016, 3, 95-105. | 6.4 | 90 |

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|----|--|------|-----------|
| 37 | Enhanced Detectability of Community Structure in Multilayer Networks through Layer Aggregation. <i>Physical Review Letters</i> , 2016, 116, 228301. | 7.8 | 59 |
| 38 | Climate shocks and migration: an agent-based modeling approach. <i>Population and Environment</i> , 2016, 38, 47-71. | 3.0 | 50 |
| 39 | Modeling of Virion Collisions in Cervicovaginal Mucus Reveals Limits on Agglutination as the Protective Mechanism of Secretory Immunoglobulin A. <i>PLoS ONE</i> , 2015, 10, e0131351. | 2.5 | 13 |
| 40 | Think locally, act locally: Detection of small, medium-sized, and large communities in large networks. <i>Physical Review E</i> , 2015, 91, 012821. | 2.1 | 88 |
| 41 | Topological data analysis of contagion maps for examining spreading processes on networks. <i>Nature Communications</i> , 2015, 6, 7723. | 12.8 | 90 |
| 42 | Network Analysis Reveals Sex- and Antibiotic Resistance-Associated Antivirulence Targets in Clinical Uropathogens. <i>ACS Infectious Diseases</i> , 2015, 1, 523-532. | 3.8 | 17 |
| 43 | Kantian fractionalization predicts the conflict propensity of the international system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 11812-11816. | 7.1 | 42 |
| 44 | Modeling Neutralization Kinetics of HIV by Broadly Neutralizing Monoclonal Antibodies in Genital Secretions Coating the Cervicovaginal Mucosa. <i>PLoS ONE</i> , 2014, 9, e100598. | 2.5 | 27 |
| 45 | Resolving Structural Variability in Network Models and the Brain. <i>PLoS Computational Biology</i> , 2014, 10, e1003491. | 3.2 | 85 |
| 46 | Dynamics on modular networks with heterogeneous correlations. <i>Chaos</i> , 2014, 24, 023106. | 2.5 | 30 |
| 47 | Fluctuation of similarity to detect transitions between distinct dynamical regimes in short time series. <i>Physical Review E</i> , 2014, 89, 062908. | 2.1 | 9 |
| 48 | Nonaxisymmetric high-aspect-ratio ellipsoids under shear: Lowest-order correction for finite aspect ratios. <i>Physical Review E</i> , 2014, 90, 013005. | 2.1 | 2 |
| 49 | Cross-linked structure of network evolution. <i>Chaos</i> , 2014, 24, 013112. | 2.5 | 68 |
| 50 | Transient Antibody-Mucin Interactions Produce a Dynamic Molecular Shield against Viral Invasion. <i>Biophysical Journal</i> , 2014, 106, 2028-2036. | 0.5 | 49 |
| 51 | Role of social environment and social clustering in spread of opinions in coevolving networks. <i>Chaos</i> , 2013, 23, 043123. | 2.5 | 15 |
| 52 | Portrait of Political Party Polarization. <i>Network Science</i> , 2013, 1, 119-121. | 1.0 | 65 |
| 53 | Multiopinion coevolving voter model with infinitely many phase transitions. <i>Physical Review E</i> , 2013, 88, 062818. | 2.1 | 16 |
| 54 | Taxonomies of networks from community structure. <i>Physical Review E</i> , 2012, 86, 036104-36104. | 2.1 | 79 |

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|----|---|------|-----------|
| 55 | Dynamical clustering of exchange rates. <i>Quantitative Finance</i> , 2012, 12, 1493-1520. | 1.7 | 50 |
| 56 | A new method for simulating rigid body motion in incompressible two-phase flow. <i>International Journal for Numerical Methods in Fluids</i> , 2011, 67, 713-732. | 1.6 | 21 |
| 57 | Community Structure in Time-Dependent, Multiscale, and Multiplex Networks. <i>Science</i> , 2010, 328, 876-878. | 12.6 | 1,655 |
| 58 | Diffusion-induced bias in near-wall velocimetry. <i>Journal of Fluid Mechanics</i> , 2007, 577, 443-456. | 3.4 | 46 |
| 59 | Random Walker Ranking for NCAA Division I-A Football. <i>American Mathematical Monthly</i> , 2007, 114, 761-777. | 0.3 | 63 |
| 60 | That sinking feeling. <i>Nature</i> , 2001, 409, 569-571. | 27.8 | 24 |