

# Jean-Philippe Bouchaud

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2599282/publications.pdf>

Version: 2024-02-01

187  
papers

11,597  
citations

71061

41  
h-index

30058

103  
g-index

194  
all docs

194  
docs citations

194  
times ranked

5729  
citing authors

#	ARTICLE	IF	CITATIONS
1	Anomalous diffusion in disordered media: Statistical mechanisms, models and physical applications. Physics Reports, 1990, 195, 127-293.	10.3	3,538
2	Noise Dressing of Financial Correlation Matrices. Physical Review Letters, 1999, 83, 1467-1470.	2.9	1,049
3	Wealth condensation in a simple model of economy. Physica A: Statistical Mechanics and Its Applications, 2000, 282, 536-545.	1.2	449
4	On the Adam-Gibbs-Kirkpatrick-Thirumalai-Wolynes scenario for the viscosity increase in glasses. Journal of Chemical Physics, 2004, 121, 7347-7354.	1.2	399
5	Stock Market Crashes, Precursors and Replicas. Journal De Physique, I, 1996, 6, 167-175.	1.2	294
6	Inhomogeneous Mode-Coupling Theory and Growing Dynamic Length in Supercooled Liquids. Physical Review Letters, 2006, 97, 195701.	2.9	262
7	Leverage Effect in Financial Markets: The Retarded Volatility Model. Physical Review Letters, 2001, 87, 228701.	2.9	254
8	Statistical properties of stock order books: empirical results and models. Quantitative Finance, 2002, 2, 251-256.	0.9	254
9	Mode-coupling approximations, glass theory and disordered systems. Physica A: Statistical Mechanics and Its Applications, 1996, 226, 243-273.	1.2	251
10	More statistical properties of order books and price impact. Physica A: Statistical Mechanics and Its Applications, 2003, 324, 133-140.	1.2	222
11	Economics needs a scientific revolution. Nature, 2008, 455, 1181-1181.	13.7	209
12	Gutzwiller wave function for a model of strongly interacting bosons. Physical Review B, 1992, 45, 3137-3140.	1.1	192
13	Crises and Collective Socio-Economic Phenomena: Simple Models and Challenges. Journal of Statistical Physics, 2013, 151, 567-606.	0.5	171
14	Cleaning large correlation matrices: Tools from Random Matrix Theory. Physics Reports, 2017, 666, 1-109.	10.3	155
15	Nonlinear susceptibility in glassy systems: A probe for cooperative dynamical length scales. Physical Review B, 2005, 72, .	1.1	147
16	An introduction to statistical finance. Physica A: Statistical Mechanics and Its Applications, 2002, 313, 238-251.	1.2	144
17	Sticky Expectations and the Profitability Anomaly. Journal of Finance, 2019, 74, 639-674.	3.2	142
18	The Black-Scholes option pricing problem in mathematical finance: generalization and extensions for a large class of stochastic processes. Journal De Physique, I, 1994, 4, 863-881.	1.2	137

#	ARTICLE	IF	CITATIONS
19	The price impact of order book events: market orders, limit orders and cancellations. Quantitative Finance, 2012, 12, 1395-1419.	0.9	130
20	Random walks, liquidity molasses and critical response in financial markets. Quantitative Finance, 2006, 6, 115-123.	0.9	128
21	Relation between bid-ask spread, impact and volatility in order-driven markets. Quantitative Finance, 2008, 8, 41-57.	0.9	126
22	Tipping points in macroeconomic agent-based models. Journal of Economic Dynamics and Control, 2015, 50, 29-61.	0.9	117
23	Freezing and extreme-value statistics in a random energy model with logarithmically correlated potential. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 372001.	0.7	113
24	Critical reflexivity in financial markets: a Hawkes process analysis. European Physical Journal B, 2013, 86, 1.	0.6	111
25	Rational decisions, random matrices and spin glasses. Physica A: Statistical Mechanics and Its Applications, 1998, 259, 449-456.	1.2	87
26	Microscopic models for long ranged volatility correlations. Physica A: Statistical Mechanics and Its Applications, 2001, 299, 28-39.	1.2	85
27	Static Avalanches and Giant Stress Fluctuations in Silos. Physical Review Letters, 1997, 78, 231-234.	2.9	77
28	Multiple Scaling Regimes in Simple Aging Models. Physical Review Letters, 2000, 84, 5403-5406.	2.9	75
29	Variational theory for disordered vortex lattices. Physical Review Letters, 1991, 67, 3840-3843.	2.9	71
30	Numerical study of aD-dimensional periodic Lorentz gas with universal properties. Journal of Statistical Physics, 1985, 41, 225-248.	0.5	68
31	Agent-based models for latent liquidity and concave price impact. Physical Review E, 2014, 89, 042805.	0.8	64
32	The Large Scale Energy Landscape of Randomly Pinned Objects. Journal De Physique, I, 1996, 6, 1007-1020.	1.2	61
33	Critical fluctuations and breakdown of the Stokes-Einstein relation in the mode-coupling theory of glasses. Journal of Physics Condensed Matter, 2007, 19, 205101.	0.7	61
34	A non-Gaussian option pricing model with skew. Quantitative Finance, 2004, 4, 499-514.	0.9	61
35	More stylized facts of financial markets: leverage effect and downside correlations. Physica A: Statistical Mechanics and Its Applications, 2001, 299, 60-70.	1.2	57
36	Extreme value problems in random matrix theory and other disordered systems. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P07019-P07019.	0.9	54

#	ARTICLE	IF	CITATIONS
37	Dynamics of Ranking Processes in Complex Systems. <i>Physical Review Letters</i> , 2012, 109, 128701.	2.9	54
38	Why Do Markets Crash? Bitcoin Data Offers Unprecedented Insights. <i>PLoS ONE</i> , 2015, 10, e0139356.	1.1	54
39	Rotational Invariant Estimator for General Noisy Matrices. <i>IEEE Transactions on Information Theory</i> , 2016, 62, 7475-7490.	1.5	49
40	The skewed multifractal random walk with applications to option smiles. <i>Quantitative Finance</i> , 2002, 2, 303-314.	0.9	47
41	Self-referential behaviour, overreaction and conventions in financial markets. <i>Journal of Economic Behavior and Organization</i> , 2007, 63, 1-24.	1.0	46
42	Elementary excitation modes in a granular glass above jamming. <i>Soft Matter</i> , 2010, 6, 3013.	1.2	46
43	Phenomenology of the interest rate curve. <i>Applied Mathematical Finance</i> , 1999, 6, 209-232.	0.8	45
44	Hedged Monte-Carlo: low variance derivative pricing with objective probabilities. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2001, 289, 517-525.	1.2	43
45	Of songs and men: a model for multiple choice with herding. <i>Quality and Quantity</i> , 2007, 41, 557-568.	2.0	42
46	Election Turnout Statistics in Many Countries: Similarities, Differences, and a Diffusive Field Model for Decision-Making. <i>PLoS ONE</i> , 2012, 7, e36289.	1.1	41
47	Variational theory for the pinning of vortex lattices by impurities. <i>Physical Review B</i> , 1992, 46, 14686-14701.	1.1	40
48	Optimal time to sell a stock in the Black-Scholes model: comment on "Thou shalt buy and hold", by A. Shiryaev, Z. Xu and X.Y. Zhou. <i>Quantitative Finance</i> , 2008, 8, 753-760.	0.9	40
49	Statistical models for company growth. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2003, 326, 241-255.	1.2	39
50	Can the glass transition be explained without a growing static length scale?. <i>Journal of Chemical Physics</i> , 2019, 150, 094501.	1.2	38
51	The subtle nature of financial random walks. <i>Chaos</i> , 2005, 15, 026104.	1.0	37
52	On a Dynamical Model of Glasses. <i>Journal De Physique, I</i> , 1995, 5, 1521-1526.	1.2	37
53	May's instability in large economies. <i>Physical Review E</i> , 2019, 100, 032307.	0.8	36
54	V-shaped, U-shaped, L-shaped or W-shaped economic recovery after Covid-19: Insights from an Agent Based Model. <i>PLoS ONE</i> , 2021, 16, e0247823.	1.1	35

#	ARTICLE	IF	CITATIONS
55	Velocity fluctuations in forced Burgers turbulence. <i>Physical Review E</i> , 1996, 54, 5116-5121.	0.8	34
56	EXPERTS' EARNING FORECASTS: BIAS, HERDING AND GOSSAMER INFORMATION. <i>International Journal of Theoretical and Applied Finance</i> , 2005, 08, 933-946.	0.2	34
57	Branching-ratio approximation for the self-exciting Hawkes process. <i>Physical Review E</i> , 2014, 90, 062807.	0.8	32
58	Competition between lattice pinning and impurity pinning: Variational theory and physical realizations. <i>Physical Review Letters</i> , 1992, 68, 3908-3911.	2.9	31
59	Explore or Exploit? A Generic Model and an Exactly Solvable Case. <i>Physical Review Letters</i> , 2014, 112, 050602.	2.9	31
60	Principal regression analysis and the index leverage effect. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2011, 390, 3026-3035.	1.2	30
61	Endogenous Crisis Waves: Stochastic Model with Synchronized Collective Behavior. <i>Physical Review Letters</i> , 2015, 114, 088701.	2.9	30
62	On growth-optimal tax rates and the issue of wealth inequalities. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2015, 2015, P11011.	0.9	29
63	The fine-structure of volatility feedback I: Multi-scale self-reflexivity. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 410, 174-195.	1.2	27
64	Statistical mechanics of a single particle in a multiscale random potential: Parisi landscapes in finite-dimensional Euclidean spaces. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2008, 41, 324009.	0.7	26
65	THE JOINT DISTRIBUTION OF STOCK RETURNS IS NOT ELLIPTICAL. <i>International Journal of Theoretical and Applied Finance</i> , 2012, 15, 1250019.	0.2	25
66	The fine structure of volatility feedback II: Overnight and intra-day effects. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2014, 402, 58-75.	1.2	25
67	Predictive power of MCT: numerical testing and finite size scaling for a mean field spin glass. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2009, 2009, P08014.	0.9	24
68	Turbulent Fracture Surfaces: A Footprint of Damage Percolation?. <i>Physical Review Letters</i> , 2015, 114, 215501.	2.9	24
69	Flory formula as an extended law of large numbers. <i>Physical Review B</i> , 1989, 39, 2846-2849.	1.1	21
70	Universal scaling and nonlinearity of aggregate price impact in financial markets. <i>Physical Review E</i> , 2018, 97, 012304.	0.8	21
71	Goodness-of-fit tests with dependent observations. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2011, 2011, P09003.	0.9	20
72	Do investors trade too much? A laboratory experiment. <i>Journal of Economic Behavior and Organization</i> , 2017, 140, 18-34.	1.0	19

#	ARTICLE	IF	CITATIONS
73	Eigenvector dynamics under free addition. <i>Random Matrices: Theory and Application</i> , 2014, 03, 1450010.	0.5	18
74	Monetary policy and dark corners in a stylized agent-based model. <i>Journal of Economic Interaction and Coordination</i> , 2017, 12, 507-537.	0.4	17
75	Crossover from Linear to Square-Root Market Impact. <i>Physical Review Letters</i> , 2019, 122, 108302.	2.9	17
76	Beauty and structural complexity. <i>Physical Review Research</i> , 2020, 2, .	1.3	17
77	Deconstructing the Low-Vol Anomaly. <i>Journal of Portfolio Management</i> , 2017, 44, 91-103.	0.3	14
78	Smile dynamics: a theory of the implied leverage effect. <i>Wilmott Journal</i> , 2009, 1, 87-94.	0.4	13
79	Critical Dynamical Heterogeneities Close to Continuous Second-Order Glass Transitions. <i>Physical Review Letters</i> , 2014, 113, 245701.	2.9	13
80	On the emergence of an "intention field"™ for socially cohesive agents. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2014, 2014, P03010.	0.9	13
81	Linear models for the impact of order flow on prices. I. History dependent impact models. <i>Quantitative Finance</i> , 2018, 18, 903-915.	0.9	13
82	The Multivariate Kyle Model: More is Different. <i>SIAM Journal on Financial Mathematics</i> , 2020, 11, 327-357.	0.7	13
83	Conductance statistics in small GaAs:Si wires at low temperatures. I. Theoretical analysis: truncated quantum fluctuations in insulating wires. <i>Journal De Physique, I</i> , 1993, 3, 2311-2320.	1.2	13
84	Co-existence of trend and value in financial markets: Estimating an extended Chiarella model. <i>Journal of Economic Dynamics and Control</i> , 2020, 112, 103791.	0.9	12
85	By force of habit: Self-trapping in a dynamical utility landscape. <i>Chaos</i> , 2020, 30, 053123.	1.0	12
86	Volatility clustering in agent based market models. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2003, 324, 6-16.	1.2	10
87	Instabilities in large economies: aggregate volatility without idiosyncratic shocks. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2014, 2014, P10040.	0.9	10
88	Sudden trust collapse in networked societies. <i>European Physical Journal B</i> , 2015, 88, 1.	0.6	10
89	Option pricing and hedging with minimum local expected shortfall. <i>Quantitative Finance</i> , 2004, 4, 607-618.	0.9	10
90	Genuine localization transition in a long-range hopping model. <i>Physical Review E</i> , 2017, 95, 062118.	0.8	9

#	ARTICLE	IF	CITATIONS
91	Agent-Based Models for Market Impact and Volatility. Handbook of Computational Economics, 2018, 4, 393-436.	1.6	9
92	Confidence collapse in a multihousehold, self-reflexive DSGE model. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 9244-9249.	3.3	9
93	Matrix Kesten recursion, inverse-Wishart ensemble and fermions in a Morse potential. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 255201.	0.7	9
94	Amorphous Order and Nonlinear Susceptibilities in Glassy Materials. Journal of Physical Chemistry B, 2021, 125, 7578-7586.	1.2	9
95	Some Applications of First-Passage Ideas to Finance. , 2014, , 447-476.		8
96	Spontaneous instabilities and stick-slip motion in a generalized HÃ©braudâ€™Lequeux model. Soft Matter, 2016, 12, 1230-1237.	1.2	8
97	Edge mode amplification in disordered elastic networks. Soft Matter, 2017, 13, 5795-5801.	1.2	8
98	Nonlinear price impact from linear models. Journal of Statistical Mechanics: Theory and Experiment, 2017, 2017, 123404.	0.9	8
99	Linear models for the impact of order flow on prices. II. The Mixture Transition Distribution model. Quantitative Finance, 2018, 18, 917-931.	0.9	8
100	Overlaps between eigenvectors of correlated random matrices. Physical Review E, 2018, 98, .	0.8	8
101	Impact is not just volatility. Quantitative Finance, 2019, 19, 1763-1766.	0.9	8
102	Aging in Glasses: Traps and Mode-Coupling Theory. Progress of Theoretical Physics Supplement, 1997, 126, 181-184.	0.2	8
103	SKEW AND IMPLIED LEVERAGE EFFECT: SMILE DYNAMICS REVISITED. International Journal of Theoretical and Applied Finance, 2015, 18, 1550022.	0.2	7
104	A fractional reactionâ€™diffusion description of supply and demand. European Physical Journal B, 2018, 91, 1.	0.6	6
105	Optimal inflation target: insights from an agent-based model. Economics, 2018, 12, .	0.2	6
106	Non-parametric estimation of quadratic Hawkes processes for order book events. European Journal of Finance, 0, , 1-16.	1.7	6
107	The Endogenous Dynamics of Markets: A Complex System Point of View. Procedia Computer Science, 2011, 7, 22-23.	1.2	5
108	The Short-Term Price Impact of Trades is Universal. Market Microstructure and Liquidity, 2017, 03, 1850002.	0.6	5

#	ARTICLE	IF	CITATIONS
109	The Information Content of Prices. , 0, , 366-380.		5
110	Are trading invariants really invariant? Trading costs matter. Quantitative Finance, 2020, 20, 1059-1068.	0.9	5
111	Good speciation and endogenous business cycles in a constraint satisfaction macroeconomic model. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 063403.	0.9	5
112	Agnostic Allocation Portfolios: <i>A Sweet Spot in the Risk-Based Jungle?</i>. Journal of Portfolio Management, 2020, 46, 22-38.	0.3	5
113	Out-of-equilibrium dynamics and excess volatility in firm networks. Journal of Economic Dynamics and Control, 2022, 138, 104362.	0.9	5
114	Comment on "Roughening Transition of Interfaces in Disordered Systems" Physical Review Letters, 1998, 81, 5953-5953.	2.9	4
115	Landscape approach for pinned elastic interfaces. Physica D: Nonlinear Phenomena, 1997, 107, 174-182.	1.3	3
116	You Are in a Drawdown. When Should You Start Worrying?. Wilmott Magazine, 2018, 2018, 56-59.	0.1	3
117	The Size Premium in Equity Markets: <i>Where Is the Risk?</i>. Journal of Portfolio Management, 2019, 45, 58-68.	0.3	3
118	Self-planting: digging holes in rough landscapes. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 123301.	0.9	3
119	Conditional Correlations and Principal Regression Analysis for Futures. Wilmott Magazine, 2021, 2021, 63-73.	0.1	3
120	Cultural diversity and wisdom of crowds are mutually beneficial and evolutionarily stable. Scientific Reports, 2021, 11, 16566.	1.6	3
121	Triblock copolymers in a selective solvent: Dilute and semi-dilute solutions. Macromolecular Symposia, 1995, 90, 203-229.	0.4	2
122	Models of Randomness and Complexity, from Turbulence to Stock Markets. Leonardo, 2008, 41, 239-243.	0.2	2
123	How Should You Discount Your Backtest PnL?. Wilmott Magazine, 2019, 2019, 53-57.	0.1	2
124	Can strong localization of waves be attained by internal resonances ?. Journal De Physique, I, 1992, 2, 1861-1867.	1.2	2
125	Hawkes processes with infinite mean intensity. Physical Review E, 2022, 105, L032101.	0.8	2
126	Optimal multi-asset trading with linear costs: a mean-field approach. Quantitative Finance, 2021, 21, 185-195.	0.9	1



#	ARTICLE	IF	CITATIONS
127	Radical Complexity. Entropy, 2021, 23, 1676.	1.1	1
128	Crisis propagation in a heterogeneous self-reflexive DSGE model. PLoS ONE, 2021, 16, e0261423.	1.1	1
129	Non-self-averaging Lyapunov exponent in random conewise linear systems. Physical Review E, 2022, 105, .	0.8	1
130	The inelastic market hypothesis: a microstructural interpretation. Quantitative Finance, 2022, 22, 1785-1795.	0.9	1
131	Universal shape of diffusion fronts in inhomogeneous media from linear response requirements. Physica A: Statistical Mechanics and Its Applications, 1989, 157, 619.	1.2	0
132	Glassy dynamics in a simple model of a one-dimensional homogeneous polymer. Journal of Physics Condensed Matter, 2002, 14, 1659-1672.	0.7	0
133	Benoit Mandelbrot: a personal tribute. Quantitative Finance, 2011, 11, 161-161.	0.9	0
134	HOW AND WHY DO PRICES MOVE?. , 0, , 1-4.		0
135	The Ecology of Financial Markets. , 0, , 5-21.		0
136	The Statistics of Price Changes: An Informal Primer. , 0, , 22-40.		0
137	LIMIT ORDER BOOKS: INTRODUCTION. , 0, , 41-43.		0
138	Limit Order Books. , 0, , 44-57.		0
139	Empirical Properties of Limit Order Books. , 0, , 58-74.		0
140	LIMIT ORDER BOOKS: MODELS. , 0, , 75-77.		0
141	Single-Queue Dynamics: Simple Models. , 0, , 78-100.		0
142	Single-Queue Dynamics for Large-Tick Stocks. , 0, , 101-116.		0
143	Joint-Queue Dynamics for Large-Tick Stocks. , 0, , 117-133.		0
144	The Santa Fe Model for Limit Order Books. , 0, , 134-158.		0

#	ARTICLE	IF	CITATIONS
145	CLUSTERING AND CORRELATIONS. , 0, , 159-162.		0
146	Time Clustering and Hawkes Processes. , 0, , 163-186.		0
147	Long-Range Persistence of Order Flow. , 0, , 187-204.		0
148	PRICE IMPACT. , 0, , 205-207.		0
149	The Impact of Market Orders. , 0, , 208-228.		0
150	The Impact of Metaorders. , 0, , 229-244.		0
151	MARKET DYNAMICS AT THE MICRO-SCALE. , 0, , 245-248.		0
152	The Propagator Model. , 0, , 249-269.		0
153	Generalised Propagator Models. , 0, , 270-286.		0
154	ADVERSE SELECTION AND LIQUIDITY PROVISION. , 0, , 287-289.		0
155	The Kyle Model. , 0, , 290-297.		0
156	The Determinants of the Bid-Ask Spread. , 0, , 298-318.		0
157	The Profitability of Market-Making. , 0, , 319-332.		0
158	MARKET DYNAMICS AT THE MESO-SCALE. , 0, , 333-336.		0
159	Latent Liquidity and Walrasian Auctions. , 0, , 337-353.		0
160	Impact Dynamics in a Continuous-Time Double Auction. , 0, , 354-365.		0
161	PRACTICAL CONSEQUENCES. , 0, , 381-383.		0
162	Optimal Execution. , 0, , 384-405.		0

#	ARTICLE	IF	CITATIONS
163	Market Fairness and Stability. , 0, , 406-421.		0
164	Two short pieces around the Wigner problem. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 024001.	0.7	0
165	Deterministic Matrices. , 2020, , 3-14.		0
166	Wigner Ensemble and Semi-Circle Law. , 2020, , 15-29.		0
167	More on Gaussian Matrices*. , 2020, , 30-42.		0
168	Wishart Ensemble and Marcenko-Pastur Distribution. , 2020, , 43-57.		0
169	Joint Distribution of Eigenvalues. , 2020, , 58-82.		0
170	Eigenvalues and Orthogonal Polynomials*. , 2020, , 83-96.		0
171	The Jacobi Ensemble*. , 2020, , 97-108.		0
172	Addition of Random Variables and Brownian Motion. , 2020, , 111-120.		0
173	Dyson Brownian Motion. , 2020, , 121-135.		0
174	Addition of Large Random Matrices. , 2020, , 136-154.		0
175	Free Probabilities. , 2020, , 155-176.		0
176	Free Random Matrices. , 2020, , 177-198.		0
177	Products of Many Random Matrices. , 2020, , 257-266.		0
178	Sample Covariance Matrices. , 2020, , 267-280.		0
179	Bayesian Estimation. , 2020, , 281-296.		0
180	The Replica Method*. , 2020, , 199-219.		0

#	ARTICLE	IF	CITATIONS
181	Edge Eigenvalues and Outliers. , 2020, , 220-240.		0
182	Addition and Multiplication: Recipes and Examples. , 2020, , 243-256.		0
183	Eigenvector Overlaps and Rotationally Invariant Estimators. , 2020, , 297-320.		0
184	Applications to Finance. , 2020, , 321-338.		0
185	Equity Factors: To Short or Not to Short, That Is the Question. Journal of Investing, 2021, 30, 34-46.	0.1	0
186	THE SUBTLE NATURE OF MARKET EFFICIENCY. , 2005, , .		0
187	High Field Behavior of Liquid and Solid <sup>3</sup> He: A New Solid Phase?. Japanese Journal of Applied Physics, 1987, 26, 207.	0.8	0