

# Thomas Guhr

## List of Publications by Year in descending order

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82  
papers

3,936  
citations

304368

22  
h-index

118652

62  
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82  
all docs

82  
docs citations

82  
times ranked

1941  
citing authors

#	ARTICLE	IF	CITATIONS
1	Two price regimes in limit order books: liquidity cushion and fragmented distant field. Journal of Statistical Mechanics: Theory and Experiment, 2022, 2022, 023401.	0.9	0
2	Winding number statistics of a parametric chiral unitary random matrix ensemble*. Journal of Physics A: Mathematical and Theoretical, 2022, 55, 224011.	0.7	3
3	Special issue in honour of the life and work of Fritz Haake. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 130301.	0.7	2
4	Matrix moments in a real, doubly correlated algebraic generalization of the Wishart model. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 125203.	0.7	0
5	Exact multivariate amplitude distributions for non-stationary Gaussian or algebraic fluctuations of covariances or correlations. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 125002.	0.7	1
6	A mapping between the spin and fermion algebra. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 345201.	0.7	0
7	Generic features in the spectral decomposition of correlation matrices. Journal of Mathematical Physics, 2021, 62, 083505.	0.5	0
8	Collective behavior in the North Rhine-Westphalia motorway network. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 123401.	0.9	3
9	Correlated power time series of individual wind turbines: A data driven model approach. Journal of Renewable and Sustainable Energy, 2020, 12, .	0.8	10
10	Uncovering the dynamics of correlation structures relative to the collective market motion. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 103402.	0.9	26
11	Quasi-stationary states in temporal correlations for traffic systems: Cologne orbital motorway as an example. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 103404.	0.9	13
12	Semiclassical prediction of large spectral fluctuations in interacting kicked spin chains. Annals of Physics, 2018, 389, 250-282.	1.0	7
13	Impact and recovery process of mini flash crashes: An empirical study. PLoS ONE, 2018, 13, e0196920.	1.1	12
14	Extreme Portfolio Loss Correlations in Credit Risk. Risks, 2018, 6, 72.	1.3	0
15	Credit Risk Meets Random Matrices: Coping with Non-Stationary Asset Correlations. Risks, 2018, 6, 42.	1.3	2
16	Concurrent credit portfolio losses. PLoS ONE, 2018, 13, e0190263.	1.1	5
17	Asymptotic coincidence of the statistics for degenerate and non-degenerate correlated real Wishart ensembles. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 235203.	0.7	1
18	The importance of antipersistence for traffic jams. Europhysics Letters, 2017, 118, 38005.	0.7	9

#	ARTICLE	IF	CITATIONS
19	Semiclassical Identification of Periodic Orbits in a Quantum Many-Body System. Physical Review Letters, 2017, 118, 164101.	2.9	32
20	Distribution of Off-Diagonal Cross Sections in Quantum Chaotic Scattering: Exact Results and Data Comparison. Physical Review Letters, 2017, 119, 244102.	2.9	16
21	Regularities and irregularities in order flow data. European Physical Journal B, 2017, 90, 1.	0.6	3
22	Regularities and Irregularities in Order Flow Data. SSRN Electronic Journal, 2017, , .	0.4	0
23	Exact results for chaotic scattering and applications to microwave experiments. , 2016, , .		1
24	Exact spectral densities of complex noise-plus-structure random matrices. Physical Review E, 2016, 94, 042130.	0.8	5
25	Spreading in integrable and non-integrable many-body systems. Physica A: Statistical Mechanics and Its Applications, 2016, 461, 683-693.	1.2	3
26	Spatial dependence in stock returns: local normalization and VaR forecasts. Empirical Economics, 2016, 50, 1091-1109.	1.5	4
27	Equilibrium pricing in an order book environment: Case study for a spin model. Physica A: Statistical Mechanics and Its Applications, 2016, 453, 228-235.	1.2	4
28	Compounding approach for univariate time series with nonstationary variances. Physical Review E, 2015, 92, 062901.	0.8	5
29	PORTFOLIO RETURN DISTRIBUTIONS: SAMPLE STATISTICS WITH STOCHASTIC CORRELATIONS. International Journal of Theoretical and Applied Finance, 2015, 18, 1550012.	0.2	9
30	Zooming into market states. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P01029.	0.9	15
31	QUANTILE CORRELATIONS: UNCOVERING TEMPORAL DEPENDENCIES IN FINANCIAL TIME SERIES. International Journal of Theoretical and Applied Finance, 2015, 18, 1550044.	0.2	2
32	Limiting statistics of the largest and smallest eigenvalues in the correlated Wishart model. Europhysics Letters, 2015, 109, 20005.	0.7	8
33	Dynamics of quasi-stationary systems: Finance as an example. Europhysics Letters, 2015, 110, 68003.	0.7	21
34	Eigenvalue density of the doubly correlated Wishart model: exact results. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 175204.	0.7	11
35	Stability and hierarchy of quasi-stationary states: financial markets as an example. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P08011.	0.9	24
36	Constructing analytically tractable ensembles of stochastic covariances with an application to financial data. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P11025.	0.9	7

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37	Spectral statistics in directed complex networks and universality of the Ginibre ensemble. Communications in Nonlinear Science and Numerical Simulation, 2015, 20, 1026-1032.	1.7	8
38	Credit risk: taking fluctuating asset correlations into account. Journal of Credit Risk, 2015, 11, 73-94.	0.2	8
39	A Random Matrix Approach to Credit Risk. PLoS ONE, 2014, 9, e98030.	1.1	17
40	Distribution of the smallest eigenvalue in complex and real correlated Wishart ensembles. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 075004.	0.7	9
41	The supersymmetry method for chiral random matrix theory with arbitrary rotation-invariant weights. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 295201.	0.7	10
42	Credit risk and the instability of the financial system: An ensemble approach. Europhysics Letters, 2014, 105, 38004.	0.7	15
43	Distributions of off-diagonal scattering matrix elements: Exact results. Annals of Physics, 2014, 342, 103-132.	1.0	22
44	Distribution of the Smallest Eigenvalue in the Correlated Wishart Model. Physical Review Letters, 2013, 111, 094101.	2.9	21
45	Non-stationarity in financial time series: Generic features and tail behavior. Europhysics Letters, 2013, 103, 58003.	0.7	42
46	Identifying States of a Financial Market. Scientific Reports, 2012, 2, 644.	1.6	160
47	Microscopic understanding of heavy-tailed return distributions in an agent-based model. Europhysics Letters, 2012, 100, 38005.	0.7	20
48	Supersymmetry Approach to Wishart Correlation Matrices: Exact Results. Journal of Statistical Physics, 2012, 148, 981-998.	0.5	25
49	STATISTICAL CAUSES FOR THE EPPS EFFECT IN MICROSTRUCTURE NOISE. International Journal of Theoretical and Applied Finance, 2011, 14, 1231-1246.	0.2	15
50	Compensating asynchrony effects in the calculation of financial correlations. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 767-779.	1.2	16
51	Local normalization: Uncovering correlations in non-stationary financial time series. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 3856-3865.	1.2	28
52	Impact of the tick-size on financial returns and correlations. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 4828-4843.	1.2	45
53	Eigenvalue Densities of Real and Complex Wishart Correlation Matrices. Physical Review Letters, 2010, 105, 244101.	2.9	30
54	A new approach to derive Pfaffian structures for random matrix ensembles. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 135204.	0.7	13

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55	Collective versus single-particle motion in quantum many-body systems from the perspective of an integrable model. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2010, 43, 265101.	0.7	6
56	Power mapping with dynamical adjustment for improved portfolio optimization. <i>Quantitative Finance</i> , 2010, 10, 107-119.	0.9	27
57	A comparison of the superbosonization formula and the generalized Hubbard-Stratonovich transformation. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009, 42, 275206.	0.7	17
58	Arbitrary rotation invariant random matrix ensembles and supersymmetry: orthogonal and unitary-symplectic case. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009, 42, 275205.	0.7	17
59	Credit risk- A structural model with jumps and correlations. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 383, 533-569.	1.2	19
60	Semiclassical limits for the QCD Dirac operator. <i>Annals of Physics</i> , 2007, 322, 287-314.	1.0	6
61	Arbitrary unitarily invariant random matrix ensembles and supersymmetry. <i>Journal of Physics A</i> , 2006, 39, 13191-13223.	1.6	28
62	Derivation of the supersymmetric Harish-Chandra integral for $UOSp(k_1/2k_2)$ . <i>Journal of Mathematical Physics</i> , 2004, 45, 3636-3644.	0.5	6
63	Angular Gelfand-Tsetlin coordinates for the supergroup $UOSp(k_1/2k_2)$ . <i>Journal of Mathematical Physics</i> , 2003, 44, 4267.	0.5	0
64	Recursive construction for a class of radial functions. I. Ordinary space. <i>Journal of Mathematical Physics</i> , 2002, 43, 2707.	0.5	31
65	Recursive construction for a class of radial functions. II. Superspace. <i>Journal of Mathematical Physics</i> , 2002, 43, 2741.	0.5	21
66	Random matrix approach to cross correlations in financial data. <i>Physical Review E</i> , 2002, 65, 066126.	0.8	758
67	Is quantum chromodynamics on the lattice a disordered system?. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 9, 418-423.	1.3	0
68	Spectral correlations in the crossover transition from a superposition of harmonic oscillators to the Gaussian unitary ensemble. <i>Physical Review E</i> , 1999, 59, 330-336.	0.8	2
69	Random-matrix theories in quantum physics: common concepts. <i>Physics Reports</i> , 1998, 299, 189-425.	10.3	1,829
70	Between Poisson and GUE Statistics: Role of the Breit-Wigner Width. <i>Annals of Physics</i> , 1998, 270, 292-327.	1.0	17
71	Spectral correlations in the crossover between GUE and Poisson regularity: On the identification of scales. <i>Journal of Mathematical Physics</i> , 1997, 38, 1870-1887.	0.5	27
72	Quantization of Hyperbolic-N-Sphere Scattering Systems in Three Dimensions. <i>Annals of Physics</i> , 1997, 258, 286-319.	1.0	23

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73	Gelfand-Tsetlin coordinates for the unitary supergroup. Communications in Mathematical Physics, 1996, 176, 555-576.	1.0	29
74	Transitions toward Quantum Chaos: With Supersymmetry from Poisson to Gauss. Annals of Physics, 1996, 250, 145-192.	1.0	70
75	Comment on: The Itzykson-Zuber integral for $U(m n)$ [J. Math. Phys. 36, 3085-3093 (1995)]. Journal of Mathematical Physics, 1996, 37, 3099-3099.	0.5	1
76	Transition from Poisson Regularity to Chaos in a Time-Reversal NonInvariant System. Physical Review Letters, 1996, 76, 2258-2261.	2.9	44
77	An Itzykson-Zuber-like integral and diffusion for complex ordinary and supermatrices. Journal of Mathematical Physics, 1996, 37, 6395-6413.	0.5	67
78	On the level density of coupled gaussian unitary ensembles. Nuclear Physics A, 1993, 560, 223-252.	0.6	14
79	On the graded group $U(1/1)$ . Journal of Mathematical Physics, 1993, 34, 2541-2553.	0.5	13
80	Fourier-Bessel analysis for ordinary and graded $2\tilde{A}-2$ Hermitian matrices. Journal of Mathematical Physics, 1993, 34, 2523-2540.	0.5	10
81	Dyson's correlation functions and graded symmetry. Journal of Mathematical Physics, 1991, 32, 336-347.	0.5	86
82	Credit Risk Meets Random Matrices: Coping with Non-Stationary Asset Correlations. SSRN Electronic Journal, 0, , .	0.4	0