

Hermann Schulz-Baldes

List of Publications by Year in descending order

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59
papers

1,015
citations

516710

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477307

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docs citations

59
times ranked

456
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Random Möbius dynamics on the unit disc and perturbation theory for Lyapunov exponents. Discrete and Continuous Dynamical Systems - Series B, 2022, 27, 945. | 0.9 | 1 |
| 2 | Analyticity properties of the scattering matrix for matrix Schrödinger operators on the discrete line. Journal of Mathematical Analysis and Applications, 2021, 497, 124856. | 1.0 | 3 |
| 3 | Dimensional Reduction and Scattering Formulation for Even Topological Invariants. Communications in Mathematical Physics, 2021, 381, 119-142. | 2.2 | 2 |
| 4 | Invariants of disordered semimetals via the spectral localizer. Europhysics Letters, 2021, 136, 27001. | 2.0 | 11 |
| 5 | Skew localizer and \mathbb{Z} -indices for real index pairings. Advances in Mathematics, 2021, 392, 108038. | 1.1 | 9 |
| 6 | The spectral localizer for semifinite spectral triples. Proceedings of the American Mathematical Society, 2021, 149, 121-134. | 0.8 | 8 |
| 7 | Pseudo-gaps for random hopping models. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 185201. | 2.1 | 2 |
| 8 | On \mathbb{Z}_2 -indices for ground states of fermionic chains. Reviews in Mathematical Physics, 2020, 32, 2050028. | 1.7 | 7 |
| 9 | Approximate symmetries and conservation laws in topological insulators and associated \mathbb{Z} -invariants. Annals of Physics, 2020, 419, 168238. | 2.8 | 7 |
| 10 | The spectral localizer for even index pairings. Journal of Noncommutative Geometry, 2020, 14, 1-23. | 0.5 | 27 |
| 11 | Chern numbers as half-signature of the spectral localizer. Journal of Mathematical Physics, 2019, 60, . | 1.1 | 7 |
| 12 | Parity as \mathbb{Z}_2 -valued spectral flow. Bulletin of the London Mathematical Society, 2019, 51, 836-852. | 0.8 | 5 |
| 13 | Spectral Flow of Monopole Insertion in Topological Insulators. Communications in Mathematical Physics, 2019, 370, 895-923. | 2.2 | 6 |
| 14 | Statistical Mechanics of MAP Estimation: General Replica Ansatz. IEEE Transactions on Information Theory, 2019, 65, 7896-7934. | 2.4 | 11 |
| 15 | Spectral Flow Argument Localizing an Odd Index Pairing. Canadian Mathematical Bulletin, 2019, 62, 373-381. | 0.5 | 6 |
| 16 | Oscillation Theory for the Density of States of High Dimensional Random Operators. International Mathematics Research Notices, 2019, 2019, 4579-4602. | 1.0 | 2 |
| 17 | Topological edge states for disordered bosonic systems. Journal of Mathematical Physics, 2018, 59, . | 1.1 | 23 |
| 18 | The non-commutative topology of two-dimensional dirty superconductors. Journal of Geometry and Physics, 2018, 124, 100-123. | 1.4 | 10 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Application of Semifinite Index Theory to Weak Topological Phases. MATRIX Book Series, 2018, , 203-227. | 0.2 | 2 |
| 20 | Spectral flow for skew-adjoint Fredholm operators. Journal of Spectral Theory, 2018, 9, 137-170. | 0.8 | 11 |
| 21 | Signatures for \hat{A} -hermitians and \hat{A} -unitaries on Krein spaces with Real structures. Mathematische Nachrichten, 2017, 290, 1840-1858. | 0.8 | 5 |
| 22 | Replica symmetry breaking in compressive sensing. , 2017, , . | | 6 |
| 23 | Topological Boundary Invariants for Floquet Systems and Quantum Walks. Mathematical Physics Analysis and Geometry, 2017, 20, 1. | 1.0 | 21 |
| 24 | Krein signatures of transfer operators for half-space topological insulators. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 405201. | 2.1 | 4 |
| 25 | RSB decoupling property of MAP estimators. , 2016, , . | | 11 |
| 26 | Generalized Connes-Chern characters in KK -theory with an application to weak invariants of topological insulators. Reviews in Mathematical Physics, 2016, 28, 1650024. | 1.7 | 16 |
| 27 | Index Pairings in Presence of Symmetries with Applications to Topological Insulators. Communications in Mathematical Physics, 2016, 343, 477-513. | 2.2 | 42 |
| 28 | Non-commutative odd Chern numbers and topological phases of disordered chiral systems. Journal of Functional Analysis, 2016, 271, 1150-1176. | 1.4 | 33 |
| 29 | Topological Insulators from the Perspective of Non-commutative Geometry and Index Theory. Deutsche Mathematiker Vereinigung Jahresbericht, 2016, 118, 247-273. | 1.1 | 20 |
| 30 | Spectral Flows Associated to Flux Tubes. Annales Henri Poincare, 2016, 17, 1-35. | 1.7 | 20 |
| 31 | The Density of Surface States as the Total Time Delay. Letters in Mathematical Physics, 2016, 106, 485-507. | 1.1 | 5 |
| 32 | Bulk and Boundary Invariants for Complex Topological Insulators. Letters in Mathematical Physics, 2016, , . | 0.6 | 198 |
| 33 | Spectral Flows of Dilations of Fredholm Operators. Canadian Mathematical Bulletin, 2015, 58, 51-68. | 0.5 | 14 |
| 34 | Gaussian fluctuations of products of random matrices distributed close to the identity. Journal of Difference Equations and Applications, 2015, 21, 467-485. | 1.1 | 3 |
| 35 | Quantization of interface currents. Journal of Mathematical Physics, 2014, 55, 121901. | 1.1 | 9 |
| 36 | Signature and Spectral Flow of J -Unitary S^1 -Fredholm Operators. Integral Equations and Operator Theory, 2014, 78, 323-374. | 0.8 | 13 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Lyapunov Spectra for All Ten Symmetry Classes of Quasi-one-dimensional Disordered Systems of Non-interacting Fermions. <i>Journal of Statistical Physics</i> , 2013, 152, 275-304. | 1.2 | 8 |
| 38 | Topological Invariants of Edge States for Periodic Two-Dimensional Models. <i>Mathematical Physics Analysis and Geometry</i> , 2013, 16, 137-170. | 1.0 | 67 |
| 39 | Orbital Polarization and Magnetization for Independent Particles in Disordered Media. <i>Communications in Mathematical Physics</i> , 2013, 319, 649-681. | 2.2 | 31 |
| 40 | Persistence of Spin Edge Currents in Disordered Quantum Spin Hall Systems. <i>Communications in Mathematical Physics</i> , 2013, 324, 589-600. | 2.2 | 14 |
| 41 | Scattering zippers and their spectral theory. <i>Journal of Spectral Theory</i> , 2013, 3, 47-82. | 0.8 | 7 |
| 42 | SCATTERING THEORY FOR LATTICE OPERATORS IN DIMENSION $d \geq 3$. <i>Reviews in Mathematical Physics</i> , 2012, 24, 1250020. | 1.7 | 23 |
| 43 | Transport in the random Kronig-Penney model. <i>Journal of Mathematical Physics</i> , 2012, 53, . | 1.1 | 8 |
| 44 | Sturm intersection theory for periodic Jacobi matrices and linear Hamiltonian systems. <i>Linear Algebra and Its Applications</i> , 2012, 436, 498-515. | 0.9 | 13 |
| 45 | Random Lie group actions on compact manifolds: A perturbative analysis. <i>Annals of Probability</i> , 2010, 38, . | 1.8 | 11 |
| 46 | Random Dirac Operators with Time Reversal Symmetry. <i>Communications in Mathematical Physics</i> , 2010, 295, 209-242. | 2.2 | 15 |
| 47 | Geometry of Weyl theory for Jacobi matrices with matrix entries. <i>Journal D'Analyse Mathématique</i> , 2010, 110, 129-165. | 0.8 | 6 |
| 48 | The Random Phase Property and the Lyapunov Spectrum for Disordered Multi-channel Systems. <i>Journal of Statistical Physics</i> , 2010, 140, 122-153. | 1.2 | 8 |
| 49 | Spectral averaging techniques for Jacobi matrices with matrix entries. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009, 42, 185204. | 2.1 | 1 |
| 50 | Positive Lyapunov exponents and localization bounds for strongly mixing potentials. <i>Advances in Theoretical and Mathematical Physics</i> , 2008, 12, 1377-1399. | 0.6 | 3 |
| 51 | Upper Bounds On Wavepacket Spreading For Random Jacobi Matrices. <i>Communications in Mathematical Physics</i> , 2007, 273, 601-618. | 2.2 | 18 |
| 52 | Scaling Diagram for the Localization Length at a Band Edge. <i>Annales Henri Poincaré</i> , 2007, 8, 1595-1621. | 1.7 | 10 |
| 53 | Lyapunov Exponents at Anomalies of $SL(2, \hat{\mathbb{Z}})$ -actions. , 2007, , 159-172. | | 6 |
| 54 | Semicircle law and freeness for random matrices with symmetries or correlations. <i>Mathematical Research Letters</i> , 2005, 12, 531-542. | 0.5 | 43 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Perturbative Test of Single Parameter Scaling for 1D Random Media. <i>Annales Henri Poincare</i> , 2004, 5, 1159-1180. | 1.7 | 12 |
| 56 | Phase-Averaged Transport for Quasi-Periodic Hamiltonians. <i>Communications in Mathematical Physics</i> , 2002, 227, 515-539. | 2.2 | 7 |
| 57 | Simultaneous quantization of edge and bulk Hall conductivity. <i>Journal of Physics A</i> , 2000, 33, L27-L32. | 1.6 | 77 |
| 58 | Intermittent Lower Bound on Quantum Diffusion. <i>Letters in Mathematical Physics</i> , 1999, 49, 317-324. | 1.1 | 23 |
| 59 | Anomalous Drude Model. <i>Physical Review Letters</i> , 1997, 78, 2176-2179. | 7.8 | 24 |