

List of publications

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2021:

- **The Wishart-Sachdev-Ye-Kitaev model: Exact spectral density, Q-Laguerre polynomials, and quantum chaos**
Lucas Sá, Antonio M. García-García, arXiv:2104.07647
- **Replica Symmetry Breaking and Phase Transitions in a PT Symmetric Sachdev-Ye-Kitaev Model**
Antonio M. García-García, Yiyang Jia, Dario Rosa, Jacobus J. M. Verbaarschot, arXiv:2102.06630
- **Euclidean wormhole in the SYK model**
Antonio M. García-García, Victor Godet, Phys. Rev. D 103, 046014 (2021).

2020:

- **Real-space visualization of multifractal superconductivity in single-layer NbSe₂**
Carmen Rubio-Verdú, Antonio M. García-García*, Hyejin Ryu, Deung-Jang Choi, Javier Zaldívar, Shujie Tang, Zhi-Xun Shen, Sung-Kwan Mo, José Ignacio Pascual, Miguel M. Ugeda, Nano Lett. 2020, 20, 7, 5111.
- **Enhanced, phase coherent, multifractal-like, two-dimensional superconductivity**
Bo Fan and A. M. García-García*, Phys. Rev. B 101, 104509 (2020)
- **Sparse Sachdev-Ye-Kitaev model, quantum chaos and gravity duals**
Antonio M. García-García*, Yiyang Jia, Dario Rosa, Jacobus J. M. Verbaarschot, arXiv:2007.13837 Accepted Phys. Rev. D
- **Phase diagram of a two-site coupled complex Sachdev-Ye-Kitaev model**
Antonio M. García-García*, Jie Ping Zheng, Vasilios Ziogas, arXiv:2008.00039 Accepted Phys. Rev. D
- **Superconductivity at the three-dimensional Anderson metal-insulator transition**
Bo Fan, Antonio M. García-García*, Phys. Rev. B 102, 184507 (2020)

2019:

- **Quantum Jackiw-Teitelboim gravity, Selberg trace formula, and random matrix theory**
A. M. García-García, S. Zacarías, arXiv:1911.10493
- **Quantum chaos transition in a two-site SYK model dual to an eternal traversable wormhole**
A. M. García-García, T. Nosaka, D. Rosa, J. J. M. Verbaarschot, Phys. Rev. D 100, 026002 (2019)
- **Many-Body Localization in a finite-range Sachdev-Ye-Kitaev model**
A. M. García-García #*, Masaki Tezuka, Phys. Rev. B 99, 054202 (2019).

2018:

- **Exact moments of the Sachdev-Ye-Kitaev model up to order $1/N^2$**
A. M. García-García #*, Yiyang Jia, Jacobus J. M. Verbaarschot, JHEP 2018 (4) 1466
- **Universality and Thouless energy in the supersymmetric Sachdev-Ye-Kitaev Model**
A. M. García-García #*, Yiyang Jia, Jacobus J. M. Verbaarschot, Phys. Rev. D 97, 106003 (2018).
- **Generic dynamical features of quenched interacting quantum systems: survival probability, density imbalance and out-of-time-ordered correlator**
E. J. Torres-Herrera, A. M. García-García *, L. F. Santos, Phys. Rev. B 97, 0603032 (2018) (Rapid).

- **Chaotic-Integrable transition in the Sachdev-Ye-Kitaev model**
A. M. García-García*, B. Loureiro, A. Romero-Bermúdez, M. Tezuka, Phys. Rev. Lett. 120, 241603 (2018).
- **Coherence effects in disordered geometries with a field-theory dual**
T. Andrade, A. M. García-García *, B. Loureiro, JHEP 2018 (3) 187.

2017:

- **Analytical Spectral Density of the Sachdev-Ye-Kitaev Model at finite N**
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- **Optical signatures of the superconducting Goldstone mode in granular aluminum: experiments and theory**
U. S. Pracht, T. Cea, N. Bachar, G. Deutscher, E. Farber, M. Dressel, M. Scheffler, C. Castellani, A. M. Garcia-Garcia *, L. Benfatto, Phys. Rev. B 96, 094514 (2017) Editors' suggestion.

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- **Transport in a gravity dual with a varying gravitational coupling constant**
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- **Scattering of universal fermionic clusters in the resonating group method**
P. Naidon, S. Endo, A. M. García-García *, J. Phys. B, 49 034002 (2016).
- **Marginal and Irrelevant Disorder in Einstein-Maxwell backgrounds**
A. M. García-García *, B. Loureiro, Phys. Rev. D 93, 065025 (2016).
- **Drude weight and Mazur-Suzuki bounds in holography**
A. M. García-García *, A. Romero-Bermúdez, Phys. Rev. D 93, 066015 (2016).
- **Universal clusters as building blocks of stable quantum matter**
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- **Universal quantum constraints on the butterfly effect**
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- **Conductivity and entanglement entropy of high dimensional holographic Superconductors**
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- **Global critical temperature in inhomogeneous superconductors induced by multifractality**
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- **Interplay of classical and "quantum" capacitance in a one dimensional array of Josephson junctions**

P. Ribeiro, A. M. García-García *, Phys. Rev. B 89, 064513 (2014).

- **Dissipation in a simple model of a topological Josephson junction**

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- **Size effects in superconducting thin films coupled to a substrate**

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- **Phase coherence in one-dimensional superconductivity by power-law hopping**

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- **Holographic Description of Finite Size Effects in Strongly Coupled Superconductors**

A. M. García-García #*, J. E. Santos, B. Way, Phys. Rev. B 86, 064526 (2012).

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A. M. García-García *, J. G. Hirsch, A. Frank, Phys. Rev. C 74 (2006) 024324.

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