

Selected Publications in no particular order

- 1. Observation of shell effects in superconducting nanoparticles of Sn**
S. Bose, A. M. García-García, M. M. Ugeda, J. D. Urbina, C. H. Michaelis, I. Brihuega and K. Kern, *Nature Materials* 9, 550 (2010).
- 2. 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.
- 3. 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
- 4. 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)
- 5. 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).
- 6. 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).
- 7. Analytical Spectral Density of the Sachdev-Ye-Kitaev Model at finite N**
A. M. García-García #*, Jacobus J. M. Verbaarschot, *Phys. Rev. D* 96, 066012 (2017).
- 8. 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.
- 9. Defect formation beyond Kibble-Zurek mechanism and holography**
P. Chesler, H. Liu, A. M. García-García, *Phys. Rev. X* 5, 021015 (2015)
- 10. Universal clusters as building blocks of stable quantum matter**
S. Endo, P. Naidon, A. M. García-García, *Phys. Rev. A* 93, 053611 (2016).
- 11. BCS theory for finite size superconductors**

A. M. García-García, J. D. Urbina, E. Yuzbashyan, K. Richter and B. Altshuler, Phys. Rev. Lett., 100, 187001 (2008).

12. A semiclassical theory of the Anderson transition

A. M. García-García, Phys. Rev. Lett., 100, 076404 (2008).

13. Dissipation in a simple model of a topological Josephson junction

P. Matthews, P. Ribeiro, A. M. García-García, Phys. Rev. Lett. 112 247001 (2014).

14. A general class of holographic superconductors

S. Franco, A.M. García-García, D. Rodriguez, JHEP 4 (2010) 092, arXiv:0906.1214.

15. Experimental observation of thermal fluctuations in single superconducting Pb nanoparticles through tunneling measurements

I. Brihuega, A. M. García-García, P. Ribeiro, M. M. Ugeda, C. H. Michaelis, S. Bose, K. Kern, Phys. Rev. B 84, 104525 (2011). (Editor Suggestions)

16. Spectral and thermodynamic properties of the Sachdev-Ye-Kitaev model

A. M. García-García, Jacobus J. M. Verbaarschot, Phys. Rev. D 94, 126010 (2016)

17. Strong enhancement of bulk superconductivity by engineering granular materials

J. Mayoh, A. M. García-García, Phys. Rev. B 90, 134513 (2014).

18. Chiral phase transition in QCD as a metal insulator transition

A. M. García-García, J. Osborn, Phys. Rev. D 75, 034503 (2007).

19. The Anderson transition in quantum chaos

A. M. García-García, J. Wang, Phys. Rev. Lett. 94, 244102(2005).

20. Finite size corrections to the blackbody radiation laws

A. M. García-García, Phys. Rev. A, 78, 023806 (2008).

21. Quantum Quenches in Disordered Systems: approach to thermal equilibrium without a typical relaxation time

E. Khatami, A. Relaño, M. Rigol, A. M. García-García, Phys. Rev. E 85, 050102 (2012) (Rapid).