

Francesco Mattiotti

Publications

Publications on peer-reviewed journals

- [6] Nahum C. Chávez, Francesco Mattiotti, J. A. Méndez-Bermúdez, Fausto Borgonovi, and G. Luca Celardo. Disorder-enhanced and disorder-independent transport with long-range hopping: Application to molecular chains in optical cavities. *Phys. Rev. Lett.*, 126:153201, Apr 2021.
- [5] Francesco Mattiotti, Masaru Kuno, Fausto Borgonovi, Boldizsár Jankó, and G. Luca Celardo. Thermal decoherence of superradiance in lead halide perovskite nanocrystal superlattices. *Nano Letters*, 20(10):7382–7388, 2020.
- [4] Nahum C. Chávez, Francesco Mattiotti, J. A. Méndez-Bermúdez, Fausto Borgonovi, and G. Luca Celardo. Real and imaginary energy gaps: a comparison between single excitation superradiance and superconductivity and robustness to disorder. *The European Physical Journal B*, 92(7):144, Jul 2019.
- [3] Marco Gullì, Alessia Valzelli, Francesco Mattiotti, Mattia Angeli, Fausto Borgonovi, and Giuseppe Luca Celardo. Macroscopic coherence as an emergent property in molecular nanotubes. *New Journal of Physics*, 21(1):013019, 2019.
- [2] Fausto Borgonovi, Francesco Mattiotti, and Felix M. Izrailev. Temperature of a single chaotic eigenstate. *Phys. Rev. E*, 95:042135, Apr 2017.
- [1] Giulio G. Giusteri, Francesco Mattiotti, and G. Luca Celardo. Non-hermitian hamiltonian approach to quantum transport in disordered networks with sinks: Validity and effectiveness. *Phys. Rev. B*, 91:094301, Mar 2015.

Conference proceedings

- [1] G. L. Celardo, A. Biella, G. G. Giusteri, F. Mattiotti, Y. Zhang, and L. Kaplan. Superradiance, disorder, and the non-hermitian hamiltonian in open quantum systems. *AIP Conference Proceedings*, 1619(1):64–72, 2014.

Preprints

- [2] Francesco Mattiotti, Mohan Sarovar, Giulio G. Giusteri, Fausto Borgonovi, and G. Luca Celardo. Efficient light harvesting and photon sensing via engineered cooperative effects, May 2021. arXiv:2105.07896.
- [1] Francesco Mattiotti, William M. Brown, Nicola Piovella, Stefano Olivares, Erik M. Gauger, and G. Luca Celardo. Bio-inspired sunlight-pumped lasers, Jul 2020. arXiv:2007.04314.