List of publications

Sudeshna Sen

Web-link of up-to-date list of publications:

- in arXiv : https://arxiv.org/a/sen_s_3.html
- in Google scholar : (https://scholar.google.com/citations?hl=en&user=N7v_G08AAAAJ&view_op=list_works&sortby=pubdate)

(Date on which prepared : September, 2024)

1 Manuscripts under preparation:

2. *"Interplay of molecular symmetry and strong correlations in molecular junctions"*
Sudeshna Sen, Emma Minarelli, Jonas Rigo, Andrew K Mitchell,
(In preparation)

1. *"Generic topological characteristics of the particle-hole asymmetric Mott transition "*,
Sudeshna Sen, Patrick J. Wong, Andrew K. Mitchell
(In preparation)

2 Published:

12. *"Relevance of long-range screening in Mott transition examined via a hydrogen lattice"*
Zi-Jian Lang, **Sudeshna Sen**, Pak Ki Henry Tsang, Kristjan Haule, Vladimir Dobrosavljevic, and Wei Ku
arXiv:2308.14053 (**Submitted**) (2024)

11. *"Many-Body Quantum Interference Route to the Two-Channel Kondo Effect: Inverse Design for Molecular Junctions and Quantum Dot Devices"*
Sudeshna Sen, and Andrew K. Mitchell
Physical Review Letters **133**, 076501 (2024)
(Selected as Editors' Suggestion)

10. *"Emergent soft-gap Anderson models at quantum criticality in a lattice Hamiltonian within dynamical mean field theory"*
Sujan Bharadwaj, Vinayak Kulkarni, N S Vidhyadhiraja,, **Sudeshna Sen**
Physical Review B **107**, 205104 (2023)

9. *"Fragility of the Kondo insulating gap against disorder: relevance to recent puzzles in topological Kondo insulators"*
Sudeshna Sen, N. S. Vidhyadhiraja, Eduardo Miranda, Vladimir Dobrosavljevic, Wei Ku,
Phys. Rev. Research) **02**, 033370 (2020)

8. *"The Mott transition as a topological phase transition"*
Sudeshna Sen, Patrick Wong, Andrew Mitchell,
Phys. Rev. B (Rapid Comm) **102**, 081110(R) (2020)
(Selected as Editors' Suggestion)

7. *"Emergence of non-Fermi liquid dynamics through non-local correlations in an interacting disordered system"*
   Sudeshna Sen, N. S. Vidhyadhiraja, Mark Jarrell,
   Phys. Rev. B **98**, 075112 (2018)

6. *"Pressure-induced melting of magnetic order and emergence of new quantum state in α-RuCl3"*
   Zhe Wang, Jing Guo, F. F. Tafti, Anthony Hegg, **Sudeshna Sen**, Vladimir A Sidorov, Le Wang, Shu Cai, Wei Yi, Yazhou Zhou, Honghong Wang, Shan Zhang, Ke Yang, Aiguo Li, Xiaodong Li, Yanchun Li, Jing Liu, Youguo Shi, Wei Ku, Qi Wu, Robert J Cava, Liling Sun,
   Phys. Rev. B **97**, 245149 (2018)
   (Selected as Editors' Suggestion)

5. *"Local theory for Mott-Anderson localization"*
   Sudeshna Sen, Hanna Terletska, Juana Moreno, N. S. Vidhyadhiraja, Mark Jarrell
   Phys. Rev. B **94**, 235104 (2016)

4. *"Quantum critical Mott transitions in a bilayer Kondo insulator -metal model system"*
   Sudeshna Sen and N. S. Vidhyadhiraja
   Phys. Rev. B **93**, 155136 (2016)

3. *"Spectral changes in layered f-electron systems induced by Kondo hole substitution in the boundary layer"*
   Sudeshna Sen, Juana Moreno, Mark Jarrell, N. S. Vidhyadhiraja
   Phys. Rev. B **91**, 155146 (2015)

2. *"Protocols for Characterising Quantum Transport through Nano-structures"*
   Sudeshna Sen and N. S. Vidhyadhiraja
   Applied Physics Letters, **101**, 133106 (2012)

1. *"Low Frequency Electrical Noise Thermometry for Micro- and Nano-scale devices"*
   R. A. Sayer, J. D. Engerer, **Sudeshna Sen**, N. S. Vidhyadhiraja and T. S. Fisher
   ASME International Mechanical Engineering Congress and Exposition (Denver, CO, 2011), pp. IMECE2011-63586