

Curriculum vitae

Personal data

- Name: Gergő Roósz
- Place of birth: Szeged, Hungary
- Date of birth: 1989. may 10.
- Married.
- Mobile: +36 20 597 0 341
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Education

- 2010 Physics BSc at University of Szeged with degree "excellent"
- 2012 Physics MSc at Eötvös Lóránd University degree "with honours"
- 2017 Physics PhD at University of Szeged "Summa cum laude"

Language skills

- English: C-type language exam (2005)
- German: B1 language exam (2015)

Computer skills

- C, C++, Python languages
- Numerical methods and libraries (LAPACK, GSL, PETSC)
- Tex, Word/Excel and their GNU-based clones

Work experience

- 2012-2017 Assistant Resreacher, Wigner Resreach Institute, Budapest
- 2017- Resreacher, Wigner Resreach Institute, Budapest

Publications

Journal articles

- Ferenc Iglói, Gergő Roósz, Yu-Cheng Lin *Nonequilibrium quench dynamics in quantum quasicrystals* New J. Phys. 15, 023036 (2013)
- Ferenc Iglói, Gergő Roósz, Loïc Turban *Evolution of the magnetization after a local quench in the critical transverse-field Ising chain* J. Stat. Mech. (2014) P03023
- Gergő Roósz., Uma Divakaran, Heiko Rieger, Ferenc Iglói *Non-equilibrium quantum relaxation across a localization-delocalization transition* Phys. Rev. B 90, 184202 (2014)
- Gergő Roósz, Róbert Juhász, Ferenc Iglói *Nonequilibrium dynamics of the Ising chain in a fluctuating transverse field* Phys. Rev. B **93**, 134305 (2016)
- Gergő Roósz., Yu-Cheng Lin, Ferenc Iglói *Critical quench dynamics of random quantum spin chains: Ultra-slow relaxation from initial order and delayed ordering from initial disorder* New J. Phys. 19, 023055 (2017)
- Robert Juhász, István A. Kovács, Gergő Roósz, Ferenc Iglói: *Entanglement between random and clean quantum spin chains* J. Phys. A. 50 32 324003 (2017).

Conference Posters

- MECO38 (Trieste 2013): Nonequilibrium quench dynamics in quantum quasicrystals

- MECO39 (Coventry 2014): Evolution of the magnetization after a local quench in the critical transverse-field Ising chain
- MECO40 (Esztergom 2015): Non-equilibrium quantum relaxation across a localization-delocalization transition
- New Trends in Strongly Entangled Many Body Systems (London 2015): Entanglement entropy dynamics in 1D quasicrystals
- MECO41 (Wien 2016): Nonequilibrium dynamics of the Ising chain in a fluctuating transverse field
- MECO42 (Lyon 2017): Bose-Hubbard model with cavity back-action

Scholarships, teaching, collaborations

Scholarships

- 2014: Two months at Universität Saarlandes, Campus Hungary grant, in the group of Prof. Dr. Heiko Rieger
- 2016: Two months at Universität Saarlandes, Campus Mundi grant, in the group of Prof. Dr. Heiko Rieger

Teaching at University

- 2012: Mechanics tutorial
- 2013-present: Statistical physics tutorials and lectures
- 2015: Lecture about Green-function methods in statistical and solid state physics

Collaborations

- With the group of Prof. Dr. Heiko Rieger about the dynamics of one dimensional quantum systems: Currently we investigate the dynamics of the Bose-Hubbard model with cavity back-action.
- I am working in a project with Zoltán Zimborás and Róbert Juhász about entanglement negativity in disordered and aperiodic systems.