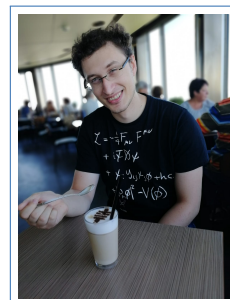


Jovan Odavić

Curriculum Vitae

✉ dzovan90@gmail.com



Education

- 2015–2019 **PhD**, *RWTH Aachen University*, Institut für Theorie der statistischen Physik A
Aachen, Germany
- 2012–2014 **MSc**, *Université de Cergy-Pontoise*, Theoretical Physics and Applications to Complex Systems
Paris, France
- 2009–2012 **BCs**, *University of Novi Sad, Faculty of Sciences, Department of Physics*
Novi Sad, Serbia

Research experience

- 2023- **Postdoctoral researcher**, *Università degli Studi di Napoli Federico II*, Postdoctoral researcher in the group of [prof. dr. Alioscia Hamma](#)
Naples, Italy
- 2020-2023 **Postdoctoral researcher**, *Institut Ruđer Bošković*, Postdoctoral researcher at Ruđer Bošković Institute working alongside Q-team headed by [prof. dr. Fabio Franchini](#) and [prof. dr. Salvatore Marco Giampaolo](#)
Zagreb, Croatia
- 2015-2019 **PhD Thesis**, *RWTH Aachen University*, Institut für Theorie der statistischen Physik A - thesis title: 'Density oscillations of one-dimensional correlated electron systems from Density Functional Theory', with [prof. dr. Volker Meden](#) and [prof. dr. Nicole Helbig](#)
Aachen, Germany
- 2014 **Master Thesis**, *Université Paris-Sud 11*, The Laboratory of Theoretical Physics and Statistical Models (LPTMS) - thesis title: 'Universal properties of 2D statistical models at the critical point: a Conformal Field Theory approach', with [prof. dr. Raoul Santachiara](#)
Paris, France

Publications

- 2023 G. Torre, **J. Odavić**, P. Fromholz, S. M. Giampaolo, F. Franchini: *Long-range entanglement and topological excitations: arXiv preprint: 2310.16091* ; ([Preprint](#)) <https://doi.org/10.48550/arXiv.2310.16091>
- 2023 **J. Odavić**, T. Haug, G. Torre, A. Hamma, F. Franchini, S. M. Giampaolo: *Complexity of frustration: a new source of non-local non-stabilizerness*, *SciPost Physics* **15**, 131; ([Regular article](#)) <https://doi.org/10.21468/SciPostPhys.15.4.131>
- 2023 **J. Odavić**, G. Torre, N. Mijić, D. Davidović, F. Franchini, S. M. Giampaolo: *Random Unitaries, Robustness, and Complexity of Entanglement*, *Quantum* **7**, 1115; ([Regular article](#)) <https://doi.org/10.22331/q-2023-09-15-1115>
- 2021 **J. Odavić**, P. Mali: *Random matrix ensembles in hyperchaotic classical dissipative dynamic systems*, *J. Stat. Mech.* 043204; ([Regular article](#)) <https://doi.org/10.1088/1742-5468/abed46>
- 2020 **J. Odavić**, N. Helbig, V. Meden: *Friedel oscillations of one-dimensional correlated fermions from perturbation theory and density functional theory*. *Eur. Phys. J. B* **93**, 103; ([Regular article](#)) <https://doi.org/10.1140/epjb/e2020-10127-1>
- 2019 **J. Odavić**: *Density oscillations of one-dimensional correlated electron systems from density functional theory*; ([Dissertation/PhD Thesis](#)) <https://doi.org/10.18154/RWTH-2019-06134>
- 2017 I. Sokolović, P. Mali, **J. Odavić**, S. Radošević, S. Yu. Medvedeva, A. E. Botha, Yu. M. Shukrinov, J. Tekić: *Devil's staircase and the absence of chaos in the dc- and ac-driven overdamped Frenkel-Kontorova model*. *Phys. Rev. E* **96**, 022210; ([Regular article](#)) <https://doi.org/10.1103/PhysRevE.96.022210>
- 2016 **J. Odavić**, P. Mali, J. Tekić, M. Pantić, M. Pavkov Hrvojević: *Application of largest Lyapunov exponent analysis on the studies of dynamics under external forces*. *Communications in Nonlinear Science and Numerical Simulation* **47**, 100–108; ([Regular article](#)) <https://doi.org/10.1016/j.cnsns.2016.11.010>
- 2015 **J. Odavić**, P. Mali, J. Tekić: *Farey sequence in the appearance of subharmonic Shapiro steps*. *Phys. Rev. E* **91**, 052904; ([Regular article](#)) <https://doi.org/10.1103/PhysRevE.91.052904>

Teaching Experience

- 2018–2019 **RWTH Aachen University**, *Teaching assistant (TA), Institute of Condensed Matter Physics*, Statistical Physics BSc course
Prof. Dr. S. Wessel

- 2016–2017 **RWTH Aachen University**, *Teaching assistant (TA), Institut für Quanteninformation*, Theoretical Classical Mechanics BSc course
Prof. Dr. F. Hassler
- 2016–2016 **RWTH Aachen University**, *Teaching assistant (TA), Institute of Condensed Matter Physics*, Statistical Physics BSc course
Prof. Dr. S. Wessel
- 2015–2016 **RWTH Aachen University**, *Teaching assistant (TA), Institut für Theorie der statistischen Physik*, Statistical Physics BSc course
Prof. Dr. H. Schoeller
- 2015–2015 **RWTH Aachen University**, *Teaching assistant (TA), Institut für Theorie der statistischen Physik*, Quantum Mechanics BSc course
Prof. Dr. H.-J. Kull

Computer skills & algorithmic implementation experience

- Computer languages: *Fortran, Mathematica, Python, Latex, PHP, MySQL, C, C++ and Julia*
- Scientific computing:
 - Monte Carlo methods
 - Exact Diagonalization
 - Density Matrix Renormalization Group
 - Density Functional Theory
 - Tensor Networks
 - Parallel Computing (CPU & GPU)
 - Symbolic Algebra
- Relevant education:
 - Quantum Many-Body methods - 7th Les Houches School in Computational Physics: Dynamics of Complex Quantum Systems, from Theory to Computation; Les Houches (France)
 - Parallel computing - Introduction to parallel programming with MPI and OpenMP; Jülich Supercomputing Centre (Germany)

Soft skills

- Teaching (see Teaching Experience)
- Organization (Informal Friday Talks - RWTH Aachen University - doctoral student seminar/journal club)

- Languages:
 - *English* - holder of Cambridge Certificate of Proficiency C2 level
 - *German* - Intermediate level B1/B2
 - *French* - Intermediate level B1
 - *Serbian* - Mother tongue

Talks

- 2023 **The Summit Meeting**, *IRB and NTU Singapore, Excitation Energy Transport in Physical, Chemical, and Biological Systems*, 08/2023
Split, Croatia
- 2022 **8th TLjZ meeting**, *ICTP (Trieste), 8th Trieste-Ljubljana-Zagreb* Meeting Statistical Physics and Condensed Matter Theory*, 12/2022
Trieste, Italy
- 2021 **NQSP seminar**, *University of Ljubljana, Nonequilibrium quantum and statistical physics group (NQSP) seminar*, 04/2021
Ljubljana, Slovenia
- 2019 **DTCC seminar**, *Institut Rudjer Bošković, Colloquium of the Department Computational Biophysics and the Department of Theoretical and Computational Chemistry (DTCC)*, 10/2019
Zagreb, Croatia
- 2019 **SCL seminar**, *Institute of Physics Belgrade, Scientific Computing Laboratory (SCL) seminar, Center for the Study of Complex Systems*, 09/2019
Belgrade, Serbia
- 2019 **SFKM 2019**, *The 20th Symposium on Condensed Matter Physics (SFKM)*, 10/2019
Belgrade, Serbia

Relevant Awards

- 2018 Best poster award: workshop of the Research Training Group 1995 - Quantum Many-body Methods in Condensed Matter Systems
- 2012 Merit master thesis scholarship: Bourses master Ile-de-France, scholarship for research master programs in the city of Paris)

General interests and leisure

- statistical physics, low dimensional quantum systems, strongly correlated physics, integrable systems, nonlinear dynamics and chaos theory, quantum information
- reading and writing

External links

- Personal website
- ResearchGate profile
- Google Scholar profile
- ORCID profile