RESUME

CONTACT INFORMATION

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ABOUT ME

A quantum physicist (theory) with a strong computational physics background. Looking for opportunities in data science (esp. machine learning), high-performance computing or quantitative finance.

SKILLS

- Analysis and visualization of numerical and experimental data
- Scientific computing, Monte-Carlo simulations, time-series analysis
- Numerical modelling of partial differential equations
- Systems: Windows, Linux
- Programming languages: FORTRAN, Matlab, Mathematica, Python, SQL
- Tools: Git, LaTeX, cmake, SGE, slurm
- High-Performance Computing: MPI, OpenMP, SGE, slurm
- Languages: German (native), English (fluent), Spanish (fluent), Japanese (basic)

EXPERIENCE

Postdoctoral fellow in computational physics **May 2017 – Dec 2019**
CTCP, Massey University, Auckland, New Zealand
- Research area: Quantum Monte-Carlo study of superfluids

Postdoctoral researcher **May 2015 – Apr 2017**
Department of Physics, the University of Tokyo, Japan
- Research area: Dynamics of dipolar ultracold quantum gases

Visiting scientist **May 2014 – Apr 2015**
Max-Planck-Institute for the Physics of Complex Systems, Dresden, Germany
- Research area: Non-equilibrium and relaxation dynamics of degenerate Fermi gases

RESEARCH

- Relevant expertise: Quantum physics, statistical mechanics, complex systems, Monte-Carlo methods, time-integration of PDEs,
- Research papers: 9 Publications, all publicly available on arXiv
- Collaborations: Univ. of Otago (NZ), MPIFKF (Germany), Univ. Hamburg (Germany)

EDUCATION

ICFO - The Institute of Photonic Sciences, Castelldefels (Barcelona), Spain
- **PhD in Photonics** (cum laude), advisor: prof. Maciej Lewenstein **2008 – 2014**
- Thesis: *Dynamics of ultracold Fermi gases*

Leibniz University Hannover, Hannover, Germany
- Physics Diploma (5 years program, M.Sc. equivalent) **2002 – 2008**
- Thesis: *Spinor condensates beyond the single-mode approximation*

ACTIVITIES

- Volunteer for *Science Dialogue*, lectures at high schools in Japan **2016-2017**
- Referee for Nature Physics **2014**
- Organizer of U Hamburg/ICFO joint workshop on ultracold atoms **2012**
- Organizer of the weekly group seminar, Lewenstein group, (ICFO) **2008-2014**
- Teaching assistant, Leibniz Universität Hannover, Germany **2003-2007**

AWARDS AND FELLOWSHIPS

- FPI doctoral fellowship (Spain) **2009-2013**
- JSPS Postdoctoral Research Fellowship (Japan) **2015-2017**
- JSPS Grant-in-aid (¥1,600,000) **2015-2017**