Curriculum Vitae

Personal Information

DATE OF BIRTH: Wiesbaden, Germany | April 1st, 1992
EMAIL: gerhard.jung.physics@gmail.com
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Main Areas of Research

I develop next-generation coarse-graining techniques for soft matter systems, drawing on methods from statistical physics and machine learning. My research focuses on complex dynamics in glassy materials and non-equilibrium active matter.

Academic Experience

11/2025 - Present	UNIVERSITY OF INNSBRUCK (AUSTRIA) *Senior Scientist* Project funded by Austrian Science Fund Area of study: Modeling and exploiting non-equilibrium soft matter
12/2023 - 10/2025	LIPHY, GRENOBLE (FRANCE) *Postdoctoral researcher* Advisor: Eric Bertin, Misaki Ozawa Area of study: Decentralized machine learning, statistical physics of social agents
10/2021 - 12/2023	CNRS, MONTPELLIER (FRANCE) *Postdoctoral researcher* Advisor: Prof. Ludovic Berthier, Prof. Giulio Biroli Area of study: Glass transition, machine learning, amorphous defects
06/2021 - 10/2021	UNIVERSITY OF KYOTO (JAPAN) *JSPS Fellow* Advisor: Prof. Ryoichi Yamamoto Area of study: Active particles in viscoelastic media
03/2019 - 05/2021	UNIVERSITY OF INNSBRUCK (AUSTRIA) *Postdoctoral researcher* Advisor: Prof. Thomas Franosch Area of study: Glass transition, crystallization, confined geometry
05/2018 - 10/2018	DURHAM UNIVERSITY (UK) *Visiting researcher* Advisor: Prof. Suzanne Fielding Area of study: Soft glassy materials, yielding transition, rheology
10/2014 - 02/2019	UNIVERSITY OF MAINZ (GERMANY) *Doctoral and postdoctoral researcher* Advisor: Prof. Friederike Schmid Area of study: Non-Markovian dynamics, systematic coarse-graining, rheology, nonequilibrium dynamics

Education

01/10/2014 - 13/12/2018	UNIVERSITY OF MAINZ *Doctor rerum naturalium* (fast-track program) Advisor: Prof. Friederike Schmid Thesis title: *'Frequency-dependent phenomena and memory in soft matter systems.'* Grade: 0.7 (*summa cum laude*)
21/12/2017	UNIVERSITY OF MAINZ *Master of Science* Advisor: Prof. Friederike Schmid Thesis title: *'Frequency-dependent hydrodynamic interaction between two solid spheres.'* Grade: 1.0
24/10/2011 - 15/08/2014	UNIVERSITY OF MAINZ *Bachelor of Science* Advisor: Prof. Friederike Schmid Thesis title: *'Phase diagrams of model lipid bilayers.'* Grade: 1.0 (*with distinction*)
12/08/2002 - 07/06/2011	GYMNASIUM ELTVILLE *High School*

Awards

2025:	Principal Investigator of the Austria Science Fund (funding amount 450,000€)
2025:	Editors' Suggestion of the publication 'Kinetic Theory of Decentralized Learning for Smart Active Matter' in Physical Review Letters
2021:	Highlighted as 'Emerging Leader 2021' by the Journal of Physics: Condensed Matter
2021:	JSPS 'short-term postdoctoral fellowship'
2019:	*Dr. rer. nat.* with 'summa cum laude'
2016 - 2019:	Member of the 'Graduate School of Excellence Materials Science in Mainz'
2013 - 2015:	Admission to the 'Studienstiftung des deutschen Volkes' (scholarship)
2013 - 2014:	Recipient of the 'Deutschlandstipendium' (scholarship)

Teaching and Mentoring

LECTURER	Advanced statistical physics
TUTORIALS	Mathematical methods of physics, modelling (computer science), statistical physics, electrodynamics, computer simulations in statistical physics
SUPERVISOR	Co-supervision of one PhD student Co-supervision of one Master student Supervision of three Bachelor students and one Master student

Organization of Academic Events

2022:	AISSAI Workshop on 'Machine Learning Glassy Dynamics' (5 days)
2018:	CECAM workshop on 'Dynamic coarse-graining and memory effects in soft matter systems" (2 days)
2017:	SFB TRR146 students retreat (5 days)

Languages

ENGLISH: fluent
GERMAN: mother tongue
FRENCH: advanced

Review activities

Reviewer for international journals: Physical Review Letters, Nature Communications, Communications Physics, Journal of Chemical Physics, Europhysics Letters, Physical Review E, Journal of Statistical Physics, SciPost Physics, Frontiers in Physics, Molecular Simulation, Macromolecular Theory and Simulations