

Curriculum vitae

- 31.1.1966: Born in Stuttgart, Baden-Württemberg, Germany.
- October 1985-July 1992 Diploma studies in Physics; finished with ‘*summa cum laude*’.
- October 1992-September 1994: Employment at *Institut für Theoretische Astrophysik*, Tübingen, Germany.
 - October 1992-December 1993: Work on a textbook of General Relativity.
 - January 1994-September 1994: Work on superfluid gyroscope project.
- September 1994: Car accident; ensuing five month stay in hospital.
- September 1995-November 1998: Work on dissertation thesis.
 - September 1995-October 1996: Supported by the *Deutsche Forschungsgemeinschaft* (DFG).
 - November 1996-September 1997 and April 1998-April 1999: Scholarship of the *Landesgraduiertenförderung Baden-Württemberg*.
 - October 1997-March 1998: Research stay at the *Kylmälaboratorio*, Helsinki University of Technology, Finland, supported by the ‘Human Capital and Mobility Programme’ of the European Union. Work with Prof. Grigori E. Volovik.
 - November 1998: Thesis submitted.
- July 1999: *Rigorousum* (oral examination), final grade ‘*summa cum laude*’.
- 1999-2002: Research stays at the Low Temperature Laboratory, Helsinki University of Technology, Finland. Work with Professor Grigori E. Volovik.
- Year 2000: Research Scholarship of the DFG for Tübingen.
- 2001-May 2002: Department of Physics at the University of Illinois at Urbana-Champaign. Working with Professors A. J. Leggett and G. Baym. Research Scholarship of the DFG (April 2002-May 2002: Supported by NSF Grant).
- August 2002-October 2003: Research assistant at the University of Innsbruck, Austria. Work in the group of Prof. Peter Zoller.
- November 2003-March 2004: Postdoc Position in Tübingen.
- Since April 2004: C1 scientific assistant position (\sim assistant professor) in Tübingen.
- April 2004: Habilitation thesis “Inhomogeneous Bose-Einstein condensates” submitted; Referees: W. G. Unruh, G. E. Volovik, and N. Schopohl.
- November 2004: Habilitation in Theoretical Physics.
- Since September 2009: Associate Professor at Seoul National University.

Lectures

- 2002-2006: Lectures *per procurationem* Prof. Peter Zoller (Innsbruck), Prof. Nils Schopohl (Tübingen), and Prof. Mario Liu (Tübingen) in Quantum Mechanics, Electrodynamics, Statistical Mechanics, and Relativity.
- SS 2004, WS 2005-2006, and WS 2006-2007: Lectures on “Theory of Bose-Einstein condensates” and “Introduction to Bose-Einstein condensates.”
- SS 2006: Theoretical Physics for High School Teachers “Thermodynamics and Thermostatistics.”
- SS 2007: Theoretical Physics for High School Teachers “Quantum Mechanics.”
- WS 2007-2008: “Continuum Mechanics.”
- SS 2008: “Coherent Quantum Phenomena in Ultracold Atomic Gases.”
- WS 2008-2009: “Hydrodynamics and Theory of Elasticity.”
- SS 2009: “Introduction to Relativity.”
- SS 2010: “Quantum Many-Body Phenomena: Bose-Einstein Condensates and Beyond.”

Organization of Tutorials

- SS 2005: Organization of tutorial groups in “Electrodynamics.”
- WS 2006-2007: Organization of tutorial groups in “Thermodynamics and Thermostatistics.”
- SS 2007: Organization of tutorial groups in “Quantum Mechanics” (part of *Integrierter Kurs IV*).

Invited Talks (Selection)

- July 2005: International Workshop on “Quantum Simulations via Analogues,” Max Planck Institute, Dresden.
- November 2005: University of Duisburg-Essen, Colloquium.
- Juni 2007: University of Cologne, Theoretisch-Physikalisches Kolloquium.
- Dezember 2007: University of Bonn, Kolloquium Optik und Kondensierte Materie.
- Januar 2008: University of Kaiserslautern, Theoretisch-Physikalisches Kolloquium.
- March 2008: University of Utrecht, The Netherlands, BEC Seminar.
- May 2008: RWTH Aachen, Colloquium.

- July 2008: Seoul National University, South Korea, Colloquium.
- December 2008: University of Leipzig, Colloquium.
- February 2009: University of Erlangen-Nürnberg, Colloquium.
- February 2009: Université de Liège, Belgium, Colloquium.
- September 2009: Technical University of Dresden, Solid State Physics Colloquium.
- January 2010: University of Hannover, Solid State Physics Colloquium.
- July 2010: University of Rostock, Theoretical Physics Colloquium.
- August 2010: Quo Vadis BEC Workshop, Max Planck Institute, Dresden.
- October 2010: Tsinghua University, Institute for Advanced Study, Beijing, China.

Research Grants

- 2000: Research Scholarship of the DFG for Tübingen.
- 2001-2002: Research Scholarship of the DFG for Urbana-Champaign, Illinois.
- 2008: DFG Project “Atomic Quantum Dots in Explicitly Time-Dependent Environments”.
- 2009: Two year Postdoc position from the BK21 (Brain Korea) program.
- 2010: Three years grant (one Postdoc and one PhD position) from the National Research Foundation of Korea (NRF).

Advisor on Theses

- Diploma Thesis by Markus Flaig on “Scattering of Sound at Vortices in Perfect Fluids” (2006) [published in Phys. Rev. B **74**, 224503 (2006)].
- Diploma Thesis by Ingrid Bausmerth on “Atomic Quantum Dot Inside a Bose Josephson Junction” (2006) [together with A. Posazhennikova, Karlsruhe, published in Phys. Rev. A **75**, 053605 (2007)].
- Diploma Thesis of Philipp Bader, “Fragmentation of Bose-Einstein Condensates in the Two-Mode Model” (2008) [published in Phys. Rev. Lett. **103**, 060402 (2009)].
- Ph.D. thesis of Namsik Yong, “Trace Anomaly and Quantum Backreaction in Dilute Gases” (in progress).
- Current Graduate Students: Myung-Kyun Kang and Kangsoo Lee.