

Professor (MSO), Physics
Roskilde University

Date of birth: 19. Aug. 1975



Academic Degrees and Positions

- 2017 **Professor (MSO)** Physics, Roskilde University
2009 **Associate Professor** Physics, Roskilde University
2007 **Assistant Professor** Physics, Roskilde University
2007 **Ph.D.** Laboratoire de Chimie Physique (LCP), Université Paris Sud (**3 years in Paris**)
2003 **M.Sc.** Physics and Mathematics, Roskilde University
Maternity leave 26.09.2013 – 03.06.2014

Research

Field of research

Studies of glasses and liquid dynamics in the full range from pico seconds to kilo seconds. Three main focus points are the behavior at high pressure, the relation between fast and slow dynamics, and aging of glasses.

Experimental development

Developed a novel technique for measuring the dynamical thermal expansivity in liquids. Led the development of 3 specialized cells for high-pressure dielectric spectroscopy. Led an international development project of a new cell for simultaneous dielectric and neutron spectroscopy at elevated pressure. Scientific responsible on development of precise temperature control for neutron scattering.

Main experimental techniques

Inelastic and quasielastic neutron scattering. High-pressure dielectric spectroscopy, aging studied by dielectric measurements and broadband shear-mechanical spectroscopy.

Awards

Dansk Magisterforenings Forskningspris 2018, 50.000 DKK honorary prize for excellence in research in natural science, awarded by Dansk Magisterforening.

KIF prize 2018, 5000 DKK awarded by Danish Women in Physics for being an excellent role model.

Grants and Projects

As PI:

2019 Collaborative PhD

Full salary of a PhD-student enrolled at RUC hired by the Institute Laue Langevin (ILL).

2018 RiDILiq

345,000 Euro from the Independent Research Fund Denmark.

2017 Collaborative postdoc

50,000 Euro in support for from DANSCATT for a postdoc working at Roskilde University and Institute Laue Langevin (ILL).

2015 Huginn: Peltier Based Temperature Control

170,000 Euro. Funding from the European Spallation Source (ESS) for a collaboration.

2012 “Sapere Aude: Starting Grant”

940,000 Euro. Grant given by The Danish Council for Independent Research.

2007 L’Oreal grant “For Women in Science”

13,400 Euro. Grant given by L’Oreal in collaboration with the Royal Danish Academy of Sciences and UNESCO.

2003 “Internationaliserings stipendiat”

180,000 Euro grant given by Forskningsuddannelsesrådet (Denmark) to finance salary and research during the 3 year period of Ph.D. studies at LCP in Paris.

Involvement in large projects with other PIs:

2020 Main supervisor of one PhD student in the SOLID, ESS light house led by prof. Henning Friis Poulsen, DTU.

2018 Member of steering group and main supervisor of one PhD student in the SMART, ESS light house led by prof. Bo Brummersted, AU.

2017 Head of the experimental part (2 of 6 work packages) of the Villum Investigator project Matter led by prof. Jeppe Dyre, RUC.

Publications and dissimulation

Scientific Publications

A total of 48 peer-reviewed papers, 1 as single author (PRL on physical-aging), 9 as first author (incl. a PRL on the boson peak) and 18 as senior author (incl. a Nat. Phys. and Nat. Comm. papers on isomorphs). Citations 1461, Hindex 22, based on Google Scholar 05.09.202:

Oral Presentations

A total of 31 oral presentations at international conferences and workshops including 16 invited talks.

Popular dissemination

More than 20 online pieces about physics in everyday life, and life as a scientist. One longer article about neutron scattering. A broad range of interviews and portraits. 10-20 talks given to high school students and broader public.

Teaching and education

Under graduate

Experience with teaching physics on all levels from first year biology students to master students in physics. This includes teaching classes of standard physics curriculum, teaching and guiding experimental courses and supervising students projects on all levels from 1st year bachelor students to master projects.

Ph.D. and postdocs

Main supervisor of 7 Ph.D. students (4 graduated, 3 ongoing) and 3 postdocs (all finished). Lectured at several PhD summerschools.

Development

Co-developed physics curriculum for non-physics majors in 2012 which is still running. Led and did main work in developing the master studies programme in “Physics and Scientific Modelling” which will start summer 2022.

Memberships and Organization

- 2020 – 2023 Member of DFiR The Danish Council for Research and Innovation Policy appointed by the Danish Ministry of Research
- 2020 – 2022 Member of Neutron Beam Time Allocation Subcommittee 6 “Structure & dynamics of liquids and glasses” at Institute Laue-Langevin, France.
- 2019 cont Editorial Fellow at SciPost.
- 2019 cont Head of Studies in Physics at Roskilde University.
- 2019 Member of Program Committee of European Conference on Neutrons Scattering, Skt. Petersburg, June 30th – July 5th 2019
- 2019 Member of PhD.D.-committee at Copenhagen University, May 2019.

- 2018 – 2019 Member of accreditation committee appointed by the Danish Ministry of Research.
- 2018 – 2020 Member of the Journal of Chemical Physics Editorial board (three years).
- 2018 Main opponent, PhD examination, Aalto University School of Chemical Engineering
- 2017 Organized the international conference “Dynamics of glass-forming liquids” April 5-7th.
http://glass.ruc.dk/Theory_and_Experiment.
- 2017–2020 Alternate member of Roskilde University Board of Directors (only one faculty member).
- 2017 cont. Member of The Danish Academy of Technical Sciences (ATV) (lifetime membership).
- 2015–2020 Member of The Young Academy of Science (The Royal Danish Academy of Science and Letters) **President of the Young Academy 2018.**
- 2015 – 2017 Member of The Scientific Advisory Council of The European Spallation Source (3 years).
- 2015 – 2018 Member the Department Works Council of DSE, RUC.
- 2009, 2016 Participant in discussions on gender equality in research with the Danish Ministry of Research, February 2009 and October 2016.
- 2013 Member of the Physics Study Council at RUC.
- 2008 – 2013 Boardmember of Danish Women in Physics. Organized the annual meetings (2009 and 2010).
- 2011 Chair of Ph.D.-committee at Roskilde University, February 2011.
- 2010 Member of Ph.D.-committees Chalmers Tekniska Högskola (Göteborg) June 2010.
- 2009 cont Co-organizer of “Glass and Time” annual international workshops.
- 2008 Co-organizer of the international workshop “Fragility of Viscous Liquids”, Copenhagen, October 8–10.
- Regular reviews for Phys. Rev. Lett., Nature Physics, and J. Chem. Phys. Moreover occasional reviews for Phys. Chem. Lett., Phys. Rev. B, Phil. Mag. and J. Appl. Poly. Science.

International experience and collaborations

- 2008 One month as visiting researcher with Prof. Simon at Texas Tech University (USA).
- 2004 – 2007 Three years as Ph.D. student with Dr. Alba-Simionesco at LCP, Paris (France).

Main current international collaborations

Collaborator on high pressure dynamics of glycerol water mixtures

Instrument Scientist Dr. Markus Apple (Institut Laue Langevin (ILL), Grenoble, France).

Collaborator on Ionic liquids

Prof. Aleksandar Matic, (Chalmers University of Technology, Gothenburg Sweden).

Former international collaborations led by me

2014–2018 **Collaborators on combined dielectric and neutron spectroscopy high pressure cell**
Prof. Simone Capaccioli (Department of Physics, University of Pisa, Italy), Dr. Bernhard Frick and Dr. Eddy Lelievre (Institut Laue Langevin (ILL), Grenoble, France), and Prof. Marian Paluch (Institute of Physics, University of Silesia, Katowice, Poland).

2015–2017 **Collaborators Precise T-control for neutrons**
Arno Heiss and Alexander Holmes European Spallation Source (ESS).