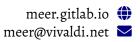
Netherlands +31639604289

Jeroen van der Meer

Curriculum vitæ As of July 19, 2024



Experience

Metrology researcher

2022-present

ASML

I develop algorithms to improve the accuracy of the interferometry systems within ASML's lithography machines. Some contributions: Invention of several algorithms for reconstructing, modelling, and correcting measurement data. Studies on aberration-induced shifts in alignment targets. Development of internal data analysis and modelling toolbox in Julia.

Physics R&D engineer

2022-2024

TMC

Consultant in the physics, nanotechnology, and data science section. Fulfilled some volunteer roles for onboarding and internal events.

Mathematician 2019–2022

University of Copenhagen

Research position in mathematics. I specialised in homotopy theory (the study of mathematical structures with data encoding deformations). My main contribution was to reinterpret some invariants from group theory (the study of symmetry) in a homotopy-theoretic language, allowing me to introduce new machinery to compute these invariants.

Hospice volunteer 2017–2019

Hospice Kromme Rijnstreek, Houten

I worked as a part-time hospice volunteer back when I was a master's student.

Teaching assistant 2015–2017

Utrecht University

Assisted in teaching numerous bachelor's-level courses in mathematics and physics.

Education

Ph.D. in mathematics 2019–2022

University of Copenhagen

Thesis: Higher-algebraic Picard invariants in modular representation theory

M.Sc. in mathematics 2017–2019

Leiden University

Thesis: A stack-theoretic perspective on KU-local stable homotopy theory

GPA: 4.0 / 4.0

B.Sc. in physics and astronomy

2014-2017

Utrecht University GPA: 4.0 / 4.0; with Honours

B.Sc. in mathematics 2014–2017

Utrecht University

Thesis: On the construction and classification of exotic structures on the 7-sphere GPA: 4.0 / 4.0; with Honours

Other skills

• **Programming:** Julia, MATLAB, Python, C++

• Computer hardware: Semiconductors, CMOS processing, computer architecture, VHDL

• Networking: TCP/IP, security

• **Data science:** NumPy, Pandas, TensorFlow, Postgres

• **Communication:** Exposition, LaTeX typesetting, public speaking

Some activities

Young Topologists Meeting

University of Copenhagen

Co-organiser of the 2022 Young Topologists Meeting, Europe's largest research conference for topologists.

Research visit to Münster

WWU Münster

Three-month research stay at the Cluster of Excellence of the University of Münster in 2021, primarily for research collaboration.

Nationale Wiskunde Symposium

Utrecht University

Co-founder of the Nationale Wiskunde Symposium ('National Mathematics Symposium'), a now yearly Dutch mathematics symposium aimed at undergraduates.

Member of Science Honours Academy

Utrecht University

Part of the Honours bachelor's programme. Among other things: member of the organising committee for interdisciplinary research projects; participant in a joint project on quantum cryptography.

Outside of work

I do kickboxing and choral singing. I'm a reasonably good cook. In my spare time, I enjoy reading about history, and toying around with electronics.