

## Contact information

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Nationality: Danish

## Employment

**Leibniz-Institut für Astrophysik Potsdam (AIP)** Dec 2020 – current  
Independent postdoc fellow in Cosmology and High-energy Astrophysics.

**Leibniz-Institut für Astrophysik Potsdam (AIP)** Dec 2017 – Nov 2020  
ERC-funded postdoc with Professor Christoph Pfrommer.

## Education

**Niels Bohr Institute, UCPH** Nov 2014 – Oct 2017  
The PhD degree was awarded on November 6th, 2017.  
The PhD thesis can be downloaded at [www.tberlok.dk/Berlok\\_thesis.pdf](http://www.tberlok.dk/Berlok_thesis.pdf).

**University of California, Berkeley** Aug 2016 – Oct 2016  
Visiting PhD fellow at the Theoretical Astrophysics Center

**University of Copenhagen** Feb 2012 – Sep 2014  
Master of Science in Physics  
GPA: 11.3/12. Thesis grade: 12/12

**University of Utrecht** Sep 2012 – Feb 2013  
Erasmus exchange student

**The European Organization for Nuclear Research, CERN** Jun 2012 – Aug 2012  
CERN summer student

**University of Copenhagen** Sep 2008 – Jan 2012  
Bachelor of Science in Physics GPA: 10.9/12. Thesis grade: 12/12

## Organisational Skills

- Main organiser of the [6th ICM Theory and Computation Workshop](#), August 15-19, 2022
- Co-organiser of weekly astro-ph meeting at AIP, 2019-2022
- Organiser of weekly "Arepo/Cluster Knowledge Sharing" meeting at AIP, 2018-2019
- Local organiser of the [3rd ICM Theory and Computation Workshop](#), August 11-14, 2014

## Programming skills and software

**Languages:** Python, C, C++, Fortran, Matlab and Mathematica.

**Codes:** AREPO (co-developer), ATHENA (self-modified local version) and ATHENA++ (user).

**My own software:** [PSECAS](#) (linear theory with pseudo-spectral methods), [SKELETOR](#) (a 2D hybrid-kinetic particle-in-cell code), [PLASMA-DISPERSION](#) (solver for gyrotropic distribution functions), [COMOVING\\_MHD\\_WAVES](#) (reference solutions for comoving MHD waves).

## Selected talks

- 6th ICM Theory and Computation Workshop, **NBI**, Copenhagen Aug 19, 2022
- Virgo meeting talk II, **Max Planck Institute for Astrophysics** Jul 12, 2022
- Virgo meeting talk I, **Max Planck Institute for Astrophysics** Jul 11, 2022
- Seminar talk, **Max Planck Institute for Astrophysics** Jan 17, 2020

- Santa Barbara Astro Lunch, **UCSB** Sep 25, 2019
- Multiscale Phenomena in Plasma Astrophysics, **KITP** Sep 9, 2019
- Physics of the Intra-Cluster Medium: Theory and Computation, Budapest Mar 5, 2019
- ICM Physics and Modeling, **MPA/ESO**, Garching Oct 10th, 2018
- AIP Colloquium, AIP, Potsdam Jul 26th, 2018
- PhD Prize talk, Annual Danish National Astronomy Meeting, Denmark May 3rd, 2018
- Astrophysics Seminars, **DAMTP**, University of Cambridge Nov 14th, 2016
- GAFD Seminars, University of California, **Santa Cruz** Sep 27th, 2016
- Theoretical Astrophysics Center, University of California, **Berkeley** Aug 17th, 2016
- Astrophysics Seminars, University of California, **Santa Barbara** Jun 3rd, 2015
- Workshop on turbulence, **Les Houches** Mar 25th, 2015
- 3rd ICM Theory and Computation Workshop, **NBI**, Copenhagen Aug 12, 2014
- Annual Danish National Astronomy Meeting, Denmark Jun 17th, 2014

## Teaching and supervision

### Leibniz-Institut für Astrophysik Potsdam (AIP)

- Advisor for the MSc project of Oliver Franke April 2019 – September 2020
- Advisor for the MSc project of Larissa Tevlin April 2022 – current

### Niels Bohr Institute, University of Copenhagen

- Mathematics for physicists II Teaching assistant Spring 2010 & 2011
- Electromagnetism and electronics Spring 201
- Electromagnetism II Fall 2013
- Thermodynamics Spring 201
- Theoretical Astrophysics Fall 2015
- Geophysical Fluid Dynamics Fall 2015

### Utrecht University, the Netherlands

Sep 2012 – Dec 2012

- Co-supervised a project on Bose-Einstein condensates

### Frederiksberg Gymnasium, Copenhagen

Aug 2011 – Dec 2011

- Taught physics and natural sciences at the upper secondary level

## Grants

- 11 mio. cpu-hours at SuperMUC-NG at LRZ (PI, equivalent to 1 mio. DKK) 2020
- Oticon, 10.000 DKK 2016
- Lørup Scholar Stipend 50.000 DKK 2014
- Julie Damms Studiefond 10.000 DKK 2012
- Oticon 6.000 DKK 2012
- Erasmus 9.000 DKK 2012

## Professional and Academic Service

Referee for the Astrophysical Journal and the Monthly Notices of the Royal Astronomical Society.