

# Curriculum vitae of Peter Laursen

Updated December 13, 2023

Nationality: Danish  
 Date of birth: June 24, 1975  
 Position: Scientific Assistant  
 Affiliation: Cosmic Dawn Center  
 Niels Bohr Institute & DTU Space  
 Spouse: Rikke Cederkvist  
 Children: Iris & Sigurd  
 (Paternity) leave: 2009 (4 months)  
 2017 (5 + 3 months)  
 2018 (3 months)  
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## Academic record

- 2020–now: Senior scientific and communication coordinator, Cosmic Dawn Center (DAWN)
- 2016–2020: Postdoc/fellow, astrophysics; Institutt for Teoretisk Astrofysikk (UiO)
- 2015–2016: System administrator / IT support; Dark Cosmology Centre (DARK)
- 2012–2015: Postdoc/fellow, astrophysics; DARK
- 2010–2012: Postdoc/fellow, astrophysics; Oskar Klein Center, Stockholm University
- 2007–2010: Ph.D. student, astrophysics; DARK. Three months were spent at The Excellence Cluster Universe, Garching
- 2004–2006: M.Sc. student, astrophysics; DARK (average grade 13/13).
- 1999–2002: B.Sc. student, physics/mathematics; Roskilde University (RUC)

## Research fields

See a detailed description of my research at [anisotropela.dk/research](http://anisotropela.dk/research).

Lyman  $\alpha$  radiative transfer. Numerical modeling of galaxies. Galaxy formation and evolution. High-redshift galaxies. Reionization. Interstellar medium. Intergalactic medium. Damped Ly $\alpha$  absorbers.

## Publications

See full list of publications at [anisotropela.dk/publications](http://anisotropela.dk/publications).

Summary:

- Total number of authored and co-authored, refereed publications: **53**
- Total number of citations: **3390**
- First-author publications: **8 (648 citations)**
- Second-author papers: **5**
- *h*-index: **30**
- Non-refereed publications: **12** (+ multiple popular science articles)

### Awards and achievements

- 2021: Author of [the most read research press release at the University of Copenhagen](#)
- 2019: Best Danish public outreach author 2018 on Forskerzonen.<sup>1</sup>
- 2016: ITA Fellowship grant for three years of independent research
- 2012: DARK Fellowship grant for three years of independent research
- 2011: First-author of Sweden's most cited paper<sup>2</sup> in astrophysics
- 2010: Villum Kann Rasmussen Foundation grant for two years of independent research

### Invited talks and seminars

- 2024: *Timescales in Galaxy Evolution*, Roskilde University
- 2023: *Lyman  $\alpha$  as a (numerical) tool to study galaxies*, Congreso Estudiantil de Física y Matemática, online
- 2019: *Lyman  $\alpha$  radiation from galaxy formation*, University College London, UK
- 2015: *Chasing the highest-redshift galaxies in Ly $\alpha$* , University of Oslo
- 2012: *Interpreting Lyman  $\alpha$  radiation from young, dusty galaxies*, Roskilde University
- 2011: *Dust and Lyman  $\alpha$* , Nordic Network of Astrophysics and Cosmology workshop, Corsica
- 2010: *Interpreting the Ly $\alpha$  line*, Nordic Astrophysics workshop, Visby
- 2010: *Modeling Ly $\alpha$  emission from high- $z$  galaxies*, Ly $\alpha$  and reionization workshop, Stockholm University
- 2009: *Lyman  $\alpha$  radiative transfer in the high-redshift, dusty Universe*, Lund Observatory

### Academic activities

- Scientific referee for
  - The Astrophysical Journal
  - Monthly Notices of the Royal Astronomical Society
  - Astronomy & Astrophysics
- Scientific Organizing Committees
  - Since 2020: Main organizer of the DAWN Summit [2020](#), [2021](#), [2022](#), & [2023](#)
  - 2021: [Cold ISM During the Epoch of Reionisation \(CIDER\)](#)
  - 2014: [European Week of Astronomy and Space Science \(EWASS\)](#)
- Other organizational work & memberships
  - 2022–: Member of the European Astronomical Society<sup>3</sup>
  - 2020–: Organizing a weekly journal club at DAWN
  - 2019–: Junior member of the International Astronomical Union<sup>4</sup>
  - 2012–: Member of the Lyman Alpha Reference Sample (LARS) collaboration (PI's: Göran Östlin and Matthew Hayes, Stockholm University)
  - 2012–2015: Organized a daily, half-hour paper discussion session at DARK
- Observational experience
  - The 2.5m Nordic Optical Telescope, La Palma (25 nights)
  - The IAC 80cm, Tenerife (6 nights)
  - The Danish 1.5m, La Silla (15 nights)
  - The ESO 2.2m, La Silla (8 nights)
- Attended conferences, workshops, etc.
  - See list [here](#)

<sup>1</sup>Mentioned e.g. by the [Danish National Research Foundation](#).

<sup>2</sup>See [www.popast.nu/2011/12/arets-basta-astronomiforskning-2011](http://www.popast.nu/2011/12/arets-basta-astronomiforskning-2011).

<sup>3</sup>[eas.unige.ch/members.jsp](http://eas.unige.ch/members.jsp).

<sup>4</sup>[iau.org/administration/membership/individual/18252](http://iau.org/administration/membership/individual/18252).

## Teaching & supervision

- Main teacher
  - “Classic papers in cosmology and astrophysics”
- Co-teacher / T.A. / guest lecturer
  - “Cosmology” (Astro 3)
  - “Cosmology and extragalactic astronomy”
  - “Making of Galaxies and Chemical Evolution”
  - “Computer Science for Physicists” (Dat F)
  - Observing course at the Nordic Optical Telescope, La Palma
  - “Cosmology” (Astro 1)
- Supervision
  - 2019: M.Sc. student Espen Hudme (subsidiary spv.), ITA
  - 2013: B.Sc. students Thejs Brinckmann and Mikkel Lindholmer (co-spv., DARK)
- External examination
  - 2022: External examiner at Magnus Sikora Ingastad’s M.Sc. defence, University of Oslo
  - 2015: External examiner at Nicolás Garavito’s M.Sc. defence, Universidad de los Andes, Bogotá, Colombia

## Public outreach

See a detailed description of my outreach activities at [anisotropela.dk/outreach](http://anisotropela.dk/outreach).

- Press releases and news stories
  - Regular updates on the research carried out at the Cosmic Dawn Center
- Media appearance
  - Regular interviews in radio shows, video, newspapers, and online science sites
- Popular talks
  - Regular (~monthly) talks about galaxies, cosmology, and other astronomy-related topics to high school students, astronomy associations, and the general public
- Popular science articles
  - Online and in science magazines
- Questions & answers
  - Answering questions about physics and astronomy at the Niels Bohr Institute’s outreach site<sup>5</sup>, at my own Q&A column<sup>6</sup>, and the popular website StackExchange.com<sup>7</sup> where  $\gtrsim 500,000$  have seen my answers
- Miscellaneous
  - Tweeting about astronomy<sup>8</sup>; posters and flyers on astronomy; astronomy workshops; public debates on science; astronomy art

## IT/sysadmin skills

- MacOS/Unix: installation, configuration, support, storage, backup, peripheral equipment, documentation
- Relevant admin software: DeployStudio, Open Directory, Workgroup Manager, FileMaker Pro
- High-performance computing: job scheduling (Slurm), OpenMP
- Other: Computer kiosk and security camera maintenance, disk installment, RAID administration

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<sup>5</sup>[nbi.ku.dk/spoerg\\_om\\_fysik/astrofysik](http://nbi.ku.dk/spoerg_om_fysik/astrofysik).

<sup>6</sup>[anisotropela.dk/brevkasse](http://anisotropela.dk/brevkasse).

<sup>7</sup>[stackexchange.com/users/5587898/pela](http://stackexchange.com/users/5587898/pela).

<sup>8</sup>[twitter.com/anisotropela](https://twitter.com/anisotropela).

### Coding skill and software

- Fortran (for quickness)
- Python (for everything else)
- Published codes: See [github.com/anisotropela](https://github.com/anisotropela)
- IDL (abandoned due to Python)
- Shell scripting (small tasks for facilitating everyday life)
- IRAF, ds9, and other astronomical software (basic knowledge)
- html/css/Javascript (to the extent seen on [anisotropela.dk](http://anisotropela.dk))
- WordPress (to the extent seen on [cosmicdawn.dk](http://cosmicdawn.dk))

### Miscellaneous

- Languages (in decreasing order of skill level): Danish, English, Swedish, Norwegian, German, Spanish, sign-augmented language
- Personal interests: Boxing, bicycle racing, playing [music](#)

### Further references

Prof. Anja C. Andersen (Ph.D. supervisor.):	<a href="mailto:anja@nbi.ku.dk">anja@nbi.ku.dk</a>
Dr. Mark Dijkstra (Ph.D. committee):	<a href="mailto:astromark@gmail.com">astromark@gmail.com</a>
Prof. Göran Östlin (collaborator, 1st postdoc):	<a href="mailto:ostlin@astro.su.se">ostlin@astro.su.se</a>
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