Curriculum vitae of Peter Laursen

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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)

Email: pela@nbi.ku.dk
Webpage: anisotropela.dk



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
- 2004–2006¹: 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

- Lyman α radiative transfer
- Numerical modeling of galaxies
- Galaxy formation and evolution
- High-redshift galaxies
- Reionization
- Interstellar medium
- Intergalactic medium
- \bullet Emission from damped ${\rm Ly}\alpha$ absorbers

Publications

See full list of publications at anisotropela.dk/publications.

Summary:

- Total number of authored and co-authored, refereed publications: 53
- Total number of citations: 3388

 $^{^{1}}$ As apparent from my academic record, there is a gap between my bachelor and master studies. In 2002 I was in an accident that costed me \sim a year of rehabilitation.

- First-author publications: **8** (**639** 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.²
- 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 paper³ 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 α as a (numerical) tool to study galaxies, Congreso Estudiantil de Física y Matemática, online
- 2019: Lyman α radiation from galaxy formation, University College London, UK
- 2015: Chasing the highest-redshift galaxies in Ly α , University of Oslo
- 2012: Interpreting Lyman α radiation from young, dusty galaxies, Roskilde University
- 2011: Dust and Lyman α , Nordic Network of Astrophysics and Cosmology workshop, Corsica
- 2010: Interpreting the Ly α line, Nordic Astrophysics workshop, Visby
- 2010: Modeling Ly α emission from high-z galaxies, Ly α and reionization workshop, Stockholm University
- 2009: Lyman α 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 (profile)
 - 2020 -: Organizing a weekly journal club at DAWN
 - 2019 : Junior member of the International Astronomical Union (profile)
 - 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 Sillà (15 nights)
 - The ESO 2.2m, La Silla (8 nights)
- Attended conferences, workshops, etc.
 - See list here

²Mentioned e.g. by Danish National Research Foundation.

³See www.popast.nu/2011/12/arets-basta-astronomiforskning-2011.

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 NicolAjs Garavito's M.Sc. defence, Universidad de los Andes, BogotAj, Colombia

Public outreach

See a detailed description of my outreach activities at 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 site⁴, at my own Q&A column⁵, and the popular website StackExchange.com⁶ where ≥500,000 have seen my answers
- Miscellaneous
 - Tweeting about astronomy⁷; 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

⁴nbi.ku.dk/spoerg_om_fysik/astrofysik.

⁵anisotropela.dk/brevkasse.

⁶stackexchange.com/users/5587898/pela.

⁷twitter.com/anisotropela.

Coding skill and software

- Fortran (for quickness)
- Python (for everything else)
- Published codes: See 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)
- WordPress (to the extent seen on 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.):

Dr. Mark Dijkstra (Ph.D. committee):

astromark@gmail.com

Prof. Göran Östlin (collaborator, 1st postdoc):

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Prof. Johan P. U. Fynbo (collaborator, 2nd postdoc):

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Dr. Sijing Shen (collaborator, 3rd postdoc): sijing.shen@astro.uio.no

Prof. Snue Toft (center director, DAWN): sune@nbi.ku.dk