

CONTACT	Institut d'Astrophysique de Paris	Telephone:	+33 7 6800 2476
INFORMATION	98bis Boulevard Arago	E-mail:	krogager@iap.fr
	75014 Paris, France	orcid.org/0000-0002-4912-9388	
		github.com/jkrogager	
DATE OF BIRTH	March 12, 1988, Holbæk, Denmark		
NATIONALITY	Danish		

EDUCATION

Ph.D., 2011 - 2015, defended Nov 6th 2015 — advisor: Prof. Johan P. U. Fynbo.

Dark Cosmology Centre, University of Copenhagen

Thesis title: *“Galaxies in the early universe characterized in absorption and emission”*

M.S., 2010 - 2013, Astronomy — advisor: Prof. Johan P. U. Fynbo

Dark Cosmology Centre, University of Copenhagen

B.S., 2006 - 2009, Physics and Astronomy

Niels Bohr Institute, University of Copenhagen

RESEARCH EXPERIENCE

2018 – Feb	Institut d'Astrophysique de Paris , France Postdoctoral researcher, funded by ANR grant, working with Dr. P. Noterdaeme
2016 – 2018 Jan Jan	Institut d'Astrophysique de Paris , France Postdoctoral research fellow, funded by the Danish Council for Independent Research, working with Dr. P. Noterdaeme
2015 – 2016 Dec Jan	Dark Cosmology Centre, University of Copenhagen , Denmark Postdoctoral Researcher, working with Dr. L. Christensen
2012 – 2014 Dec Dec	European Southern Observatory , Santiago, Chile PhD Studentship, working with Dr. C. Ledoux

GRANTS AND FELLOWSHIPS

2017, 2019	ESO Scientific Visitor Programme, ESO Santiago, Chile 5 and 6 weeks, respectively, working with Dr. C. Ledoux.
2015	MOBILEX fellowship — Danish Council for Independent Research <i>“Chemical Enrichment and Dust in the Early Universe”</i> , Grant ID: DFF - 5051-00115 2 year research grant, Jan 2016 – Jan 2018 (2,000,000 DKK = ~267,000 €)
2012, 2014	Instrument Center for Danish Astrophysics Two travel grants (2 × ~2000 €)
2011	Danish Agency for Science and Innovation Travel grant (~2000 €)

TEACHING

- 2016 — 2019 **Informal co-supervision of PhD student A. Ranjan**
(advisors: Noterdaeme & Petitjean)
- 2017 **NEON summer school in observational astronomy**
Isaac Newton Telescope and Nordic Optical Telescope, La Palma, Spain
15 days mentoring a group of 4 students.
Responsibilities: data reduction, preparation and execution of observations,
written and oral presentation
- 2015 **Invited lecture for master's course "Galaxy Formation"**
Niels Bohr Institute, University of Copenhagen
2 x 45 min entitled "Damped Lyman- α Absorbers as probes of Galaxy Evolution"
- 2012, 2014 **T.A. for the Observing School at the Nordic Optical Telescope**
Organized by the Niels Bohr Institute, University of Copenhagen
3 nights at the telescope each year, 7.5 ECTS each course.
Responsibilities: data reduction, preparation of observations, written presentation
- 2012 **T.A. in Electromagnetism**
Niels Bohr Institute, University of Copenhagen, 30h in total

PROGRAMMING AND DATA ANALYSIS

- Programming languages:** Python, HTML, JavaScript, IRAF, SQL
- Data reduction:** Long-slit spectroscopy, echelle spectroscopy (X-Shooter),
imaging and slit-less spectroscopy (*HST*/WFC3)
- Statistics:** Bayesian parameter estimation (incl. MCMC methods),
model comparison
- Software development (Python):**
- VoigtFit Absorption line analysis, see github and the *Astrophysics Source Code Library*
- PyNOT An automated pipeline to reduce NOT/ALFOSC spectra
- drizPSF Simulation of effective PSF for combined imaging data sets of *HST*/WFC3
- xsh A automated data-organizer and reduction pipeline manager for VLT/X-shooter

OBSERVING EXPERIENCE

- As PI:** NTT at La Silla; VLT/X-shooter; VLT/SINFONI; VLT/ESPRESSO;
Nordic Optical Telescope (NOT)
- As Co-I:** VLT/UVES; Southern African Large Telescope (SALT);
Gran Telescopio Canarias (GTC); Giant Metrewave Radio Telescope (GMRT);
MeerKAT (SKA precursor in South Africa); *Hubble Space Telescope*: WFC3
- As observer:** VLT/X-Shooter; NOT/ALFOSC; Isaac Newton Telescope; NTT/EFOSC2
- Technical project** at ESO/VLT characterizing the 'diaphragm observing mode' for X-Shooter
working with instrument scientist, Dr. C. Martayan.

INSTITUTIONAL RESPONSABILITIES

- 2019 – Postdoc representative at the Conseil de Laboratoire at IAP, France
- 2018 – Organization of weekly social events for physics postdocs across Paris, France
- 2017 Organizer of ‘VoigtFit Workshop’, Dark Cosmology Centre, Denmark
- 2017 Member of SOC for Special Session at EWASS, Prague, Czech Republic
“*Damped Lyman-alpha Absorbers in Absorption and Emission*”
- 2010 – 2015 Organization of daily astro-ph journal club at Dark Cosmology Centre, Denmark
- 2014 – 2015 Organization of weekly seminars at Dark Cosmology Centre, Denmark
- 2013 – 2014 Organization of weekly, informal student presentations at ESO, Chile
- 2013 Member of LOC for ESO workshop, “Deconstructing Galaxies”, Chile

INSTRUMENTATION AND INTERNATIONAL SURVEYS

WEAVE-QSO survey

Co-I Responsible for target selection and data quality

MeerKAT Absorption Line Survey (MALS)

Co-I and working group chair for optical spectroscopic follow-up

NOT Transient Explorer (NTE)

Co-I of instrumental development for the Nordic Optical Telescope

Maunakea Spectroscopic Explorer (MSE)

Science Team Member

PUBLIC OUTREACH

- 2019 “**Nuit de l’Astronomie 2020**”, IAP, France
Member of organizing committee
- 2018 “**Fête de la Science**”, IAP, France
- 2012, 2013 **Two press releases** in English distributed by the Niels Bohr Institute, Denmark
Entitled: “Baby galaxies grew up quickly” and “New knowledge about early galaxies”

LANGUAGES

	[ILR scale]
Danish	native (5)
English	full professional (4)
French	professional (3)
Spanish	professional (3)
German	elementary (1)
Japanese	elementary (1)

TALKS AT INTERNATIONAL CONFERENCES

WEAVE busy week - IAC, Tenerife, Spain, Sep 2019

“WEAVE-QSO final summary”

WEAVE-QSO virtual meeting, Sep 2019

“Metallicity Evolution and Dust Reddening from DLAs”

ESO Thirty Minute Talk - Santiago, Chile, Feb 2019

”Dissecting the High-redshift Interstellar Medium”

Van de Hulst Centennial Symposium - Leiden, Netherlands, Nov 2018

Poster: *“Dissecting the High-redshift Interstellar Medium”*

Galaxies in Absorption - Pune, India, Dec 2017

“Emission counterparts of metal-rich DLAs”

VoigtFit Workshop - Copenhagen, Denmark, Nov 2017

“An introduction to absorption lines” and “VoigtFit: what it is and what it isn’t”

The 10th meeting on Cosmic Dust - Tokyo, Japan, Aug 2017

“Molecular absorption line systems with 2175Å bumps”

Invited review at ‘GRBs meet Galaxies’ - Marseille, France, Sep 2017

“Damped Lyman-alpha Absorbers in Absorption and Emission”

WEAVE-QSO Meeting - Marseille, France, Jul 2017

“Quasar Target Selection with Gaia Proper Motions”

ESO Thirty Minute Talk - Santiago, Chile, Jan 2017

“The metallicity-luminosity relation for high-z, absorption-selected galaxies”

Probing baryons in the Universe - Sèvres, Paris, France, Nov 2016

“Emission counterparts of metal-rich DLAs”

Galaxies on Top of Quasars - Pittsburgh, United States of America, Apr 2016

“Metals and molecules in dusty DLAs”

Assembly of the Danish Astronomical Society - Helsingør, Denmark, May 2015

”Dust in Damped Lyman-alpha Absorbers”

Chemical Evolution Workshop - Copenhagen, Denmark, Aug 2014

“Chemical evolution in DLAs”

6th workshop on Galaxies in Absorption - Paris, France, Sep 2014

”Galaxies in Absorption: Metal-rich DLAs”

Metal Production and Distribution in a Hierarchical Universe - Paris, France, Oct 2013

“Emission from high-metallicity DLAs”

Science with the Nordic Optical Telescope - Århus, Denmark, Oct 2012

"Evidence for steep extinction curves towards galactic centres"

The 5th meeting on Cosmic Dust - Kobe, Japan, Aug 2012

"Dust in Damped Lyman-alpha absorbing galaxies"

ESA's space instrumentation summer school - Alpbach, Austria, 2011

Team leader for science case study: *"FIO: a far-infrared interferometer in space"*

OTHER TALKS

Seminar at CRAL - Lyon, France, Sep 2019

"Absorption Spectroscopy: a Unique Probe of Galaxy Evolution"

'Galaxies' Journal Club, IAP - Paris, France, Sep 2019

"Dissecting the High-redshift Interstellar Medium"

ICAP journal club at IAP - Paris, France, Jun 2019

"Dissecting the High-redshift Interstellar Medium"

Seminar at Ioffe Institute - St. Petersburg, Russia, Oct 2018

"Probing high-redshift galaxies with Damped Lyman-alpha Absorbers"

Seminar at Dark Cosmology Centre - Copenhagen, Denmark, May 2018

"Constraining ISM properties at high-z towards a lensed quasar"

Postdoc Day at IAP - Paris, France Mar 2018

"Quasar absorption systems as probes of the high-z universe"

ICAP journal club at IAP - Paris, France, Dec 2017

"Dust Bias in SDSS Quasar Samples"

Journal club at IAP - Paris, France, Jun 2017

"Emission counterparts of metal-rich DLAs"

Lunch talk at ESO/MPA/MPE - Garching, Germany, Apr 2017

"Emission counterparts of metal-rich DLAs"

Seminar at Dark Cosmology Centre - Copenhagen, Denmark, Feb 2015

"Astronomy on the other side: a summary of my studentship at ESO"

ESO science day - Santiago, Chile, Feb 2014

"Galaxy Evolution studied in absorption and emission"