

Number of refereed first-author articles: 10 — Citations: 299.

Number of refereed articles: 37 — Citations: 1503.

$h$ -index: 16.

## Refereed Publications

1. Balashev, S. A.; Klimenko, V. V.; Noterdaeme, P.; **Krogager**, J.-K.; Varshalovich, D. A.; Ivanchik, A. V.; Petitjean, P.; Srianand, R., and Ledoux, C.  
“X-shooter observations of strong H<sub>2</sub>-bearing DLAs at high redshift,” *Monthly Notices of the Royal Astronomical Society* 490, pp. 2668–2678 (2019).
2. Geier, S. J.; Heintz, K. E.; Fynbo, J. P. U.; Ledoux, C.; Christensen, L.; Jakobsson, P.; **Krogager**, J.-K.; Milvang-Jensen, B.; Møller, P., and Noterdaeme, P.  
“Gaia-assisted selection of a quasar reddened by dust in an extremely strong damped Lyman- $\alpha$  absorber at  $z = 2.226$ ,” *Astronomy & Astrophysics* 625, p. L9 (2019).
3. Heintz, K. E.; Ledoux, C.; Fynbo, J. P. U.; Jakobsson, P.; Noterdaeme, P.; **Krogager**, J.-K.; Bolmer, J.; Møller, P.; Vergani, S. D.; Watson, D.; Zafar, T.; De Cia, A.; Tanvir, N. R.; Malesani, D. B.; Japelj, J.; Covino, S., and Kaper, L.  
“Cold gas in the early Universe. Survey for neutral atomic-carbon in GRB host galaxies at  $1 < z < 6$  from optical afterglow spectroscopy,” *Astronomy & Astrophysics* 621, A20 (2019).
4. Heintz, K. E.; Bolmer, J.; Ledoux, C.; Noterdaeme, P.; **Krogager**, J.-K.; Fynbo, J. P. U.; Jakobsson, P.; Covino, S.; D’Elia, V.; De Pasquale, M.; Hartmann, D. H.; Izzo, L.; Japelj, J.; Kann, D. A.; Kaper, L.; Petitjean, P.; Rossi, A.; Salvaterra, R.; Schady, P.; Selsing, J.; Starling, R.; Tanvir, N. R.; Thöne, C. C.; de Ugarte Postigo, A.; Vergani, S. D.; Watson, D.; Wiersema, K., and Zafar, T.  
“New constraints on the physical conditions in H<sub>2</sub>-bearing GRB-host damped Lyman- $\alpha$  absorbers,” *Astronomy & Astrophysics* 629, A131 (2019).
5. **Krogager**, J.-K.; Fynbo, J. P. U.; Møller, P.; Noterdaeme, P.; Heintz, K. E., and Pettini, M.  
“The effect of dust bias on the census of neutral gas and metals in the high-redshift Universe due to SDSS-II quasar colour selection,” *Monthly Notices of the Royal Astronomical Society* 486, pp. 4377–4397 (2019).
6. Noterdaeme, P.; Balashev, S.; **Krogager**, J.-K.; Srianand, R.; Fathivavsari, H.; Petitjean, P., and Ledoux, C.  
“Proximate molecular quasar absorbers. Excess of damped H<sub>2</sub> systems at  $z_{\text{abs}} \approx z_{\text{QSO}}$  in SDSS DR14,” *Astronomy & Astrophysics* 627, A32 (2019).
7. Schindler, J.-T.; Fan, X.; McGreer, I. D.; Yang, J.; Wang, F.; Green, R.; Fynbo, J. P. U.; **Krogager**, J.-K.; Green, E. M.; Huang, Y.-H.; Kadowaki, J.; Patej, A.; Wu, Y.-L., and Yue, M.  
“The Extremely Luminous Quasar Survey in the Sloan Digital Sky Survey Footprint. III. The South Galactic Cap Sample and the Quasar Luminosity Function at Cosmic Noon,” *The Astrophysical Journal* 871, p. 258 (2019).
8. Heintz, K. E.; Fynbo, J. P. U.; Ledoux, C.; Jakobsson, P.; Møller, P.; Christensen, L.; Geier, S.; **Krogager**, J.-K., and Noterdaeme, P.  
“A quasar hiding behind two dusty absorbers. Quantifying the selection bias of metal-rich, damped Ly $\alpha$  absorption systems,” *Astronomy & Astrophysics* 615, A43 (2018).

9. Heintz, K. E.; Watson, D.; Jakobsson, P.; Fynbo, J. P. U.; Bolmer, J.; Arabsalmani, M.; Cano, Z.; Covino, S.; D’Elia, V.; Gomboc, A.; Japelj, J.; Kaper, L.; **Krogager**, J.-K.; Pugliese, G.; Sánchez-Ramírez, R.; Selsing, J.; Sparre, M.; Tanvir, N. R.; Thöne, C. C.; de Ugarte Postigo, A., and Vergani, S. D.  
“Highly ionized metals as probes of the circumburst gas in the natal regions of gamma-ray bursts,” *Monthly Notices of the Royal Astronomical Society* 479, pp. 3456–3476 (2018).
10. Heintz, K. E.; Fynbo, J. P. U.; Høg, E.; Møller, P.; **Krogager**, J.-K.; Geier, S.; Jakobsson, P., and Christensen, L.  
“Unidentified quasars among stationary objects from Gaia DR2,” *Astronomy & Astrophysics* 615, p. L8 (2018).
11. **Krogager**, J.-K.; Noterdaeme, P.; O’Meara, J. M.; Fumagalli, M.; Fynbo, J. P. U.; Prochaska, J. X.; Hennawi, J.; Balashev, S.; Courbin, F.; Rafelski, M.; Smette, A., and Boissé, P.  
“Dissecting cold gas in a high-redshift galaxy using a lensed background quasar,” *Astronomy & Astrophysics* 619, A142 (2018).
12. **Krogager**, J.-K.; Gupta, N.; Noterdaeme, P.; Ranjan, A.; Fynbo, J. P. U.; Srianand, R.; Petitjean, P.; Combes, F., and Mahabal, A.  
“MALS-NOT: Identifying Radio-bright Quasars for the MeerKAT Absorption Line Survey,” *The Astrophysical Journal Supplement Series* 235, p. 10 (2018).
13. Rahmani, H.; Péroux, C.; Schroetter, I.; Augustin, R.; Bouché, N.; **Krogager**, J.-K.; Kulkarni, V. P.; Milliard, B.; Møller, P.; Pettini, M.; Vernet, J., and York, D. G.  
“A Lyman limit system associated with galactic winds,” *Monthly Notices of the Royal Astronomical Society* 480, pp. 5046–5059 (2018).
14. Ranjan, A.; Noterdaeme, P.; **Krogager**, J.-K.; Petitjean, P.; Balashev, S. A.; Bialy, S.; Srianand, R.; Gupta, N.; Fynbo, J. P. U.; Ledoux, C., and Laursen, P.  
“Molecular gas and star formation in an absorption-selected galaxy: Hitting the bull’s eye at  $z \approx 2.46$ ,” *Astronomy & Astrophysics* 618, A184 (2018).
15. Zou, S.; Petitjean, P.; Noterdaeme, P.; Ledoux, C.; **Krogager**, J.-K.; Fathivavsari, H.; Srianand, R., and López, S.  
“Near-infrared spectroscopic observations of high redshift CI absorbers,” *Astronomy & Astrophysics* 616, A158 (2018).
16. Dutta, R.; Srianand, R.; Gupta, N.; Joshi, R.; Petitjean, P.; Noterdaeme, P.; Ge, J., and **Krogager**, J.-K.  
“Incidence of HI 21-cm absorption in strong Fe II systems at  $0.5 < z < 1.5$ ,” *Monthly Notices of the Royal Astronomical Society* 465, pp. 4249–4264 (2017).
17. Fynbo, J. P. U.; **Krogager**, J.-K.; Heintz, K. E.; Geier, S.; Møller, P.; Noterdaeme, P.; Christensen, L.; Ledoux, C., and Jakobsson, P.  
“The High  $A_V$  Quasar Survey: A  $z = 2.027$  metal-rich damped Lyman- $\alpha$  absorber towards a red quasar at  $z = 3.21$ ,” *Astronomy & Astrophysics* 606, A13 (2017).
18. **Krogager**, J.-K.; Møller, P.; Fynbo, J. P. U., and Noterdaeme, P.  
“Consensus report on 25 yr of searches for damped Ly $\alpha$  galaxies in emission: confirming their metallicity-luminosity relation at  $z \gtrsim 2$ ,” *Monthly Notices of the Royal Astronomical Society* 469, pp. 2959–2981 (2017).

19. Noterdaeme, P.; [Krogager](#), J.-K.; Balashev, S.; Ge, J.; Gupta, N.; Krühler, T.; Ledoux, C.; Murphy, M. T.; Pâris, I.; Petitjean, P.; Rahmani, H.; Srianand, R., and Ubachs, W.  
“Discovery of a Perseus-like cloud in the early Universe. H I-to-H<sub>2</sub> transition, carbon monoxide and small dust grains at  $z_{abs} \approx 2.53$  towards the quasar J0000+0048,” *Astronomy & Astrophysics* 597, A82 (2017).
20. Heintz, K. E.; Fynbo, J. P. U.; Møller, P.; Milvang-Jensen, B.; Zabl, J.; Maddox, N.; [Krogager](#), J.-K.; Geier, S.; Vestergaard, M.; Noterdaeme, P., and Ledoux, C.  
“Determining the fraction of reddened quasars in COSMOS with multiple selection techniques from X-ray to radio wavelengths,” *Astronomy & Astrophysics* 595, A13 (2016).
21. Heintz, K. E.; Fynbo, J. P. U.; [Krogager](#), J.-K.; Vestergaard, M.; Møller, P.; Arabsalmani, M.; Geier, S.; Noterdaeme, P.; Ledoux, C.; Saturni, F. G., and Venemans, B.  
“Serendipitous Discovery of a Projected Pair of QSOs Separated by 4.5 arcsec on the Sky,” *Astronomical Journal* 152, p. 13 (2016).
22. [Krogager](#), J.-K.; Fynbo, J. P. U.; Noterdaeme, P.; Zafar, T.; Møller, P.; Ledoux, C.; Krühler, T., and Stockton, A.  
“A quasar reddened by a sub-parsec-sized, metal-rich and dusty cloud in a damped Lyman $\alpha$  absorber at  $z = 2.13$ ,” *Monthly Notices of the Royal Astronomical Society* 455, pp. 2698–2711 (2016).
23. [Krogager](#), J.-K.; Fynbo, J. P. U.; Heintz, K. E.; Geier, S.; Ledoux, C.; Møller, P.; Noterdaeme, P.; Venemans, B. P., and Vestergaard, M.  
“The Extended High A(V) Quasar Survey: Searching for Dusty Absorbers toward Mid-infrared-selected Quasars,” *The Astrophysical Journal* 832, p. 49 (2016).
24. Selsing, J.; Fynbo, J. P. U.; Christensen, L., and [Krogager](#), J.-K.  
“An X-Shooter composite of bright  $1 < z < 2$  quasars from UV to infrared,” *Astronomy & Astrophysics* 585, A87 (2016).
25. Hartoog, O. E.; Malesani, D.; Fynbo, J. P. U.; Goto, T.; Krühler, T.; Vreeswijk, P. M.; De Cia, A.; Xu, D.; Møller, P.; Covino, S.; D’Elia, V.; Flores, H.; Goldoni, P.; Hjorth, J.; Jakobsson, P.; [Krogager](#), J.-K.; Kaper, L.; Ledoux, C.; Levan, A. J.; Milvang-Jensen, B.; Sollerman, J.; Sparre, M.; Tagliaferri, G.; Tanvir, N. R.; de Ugarte Postigo, A.; Vergani, S. D.; Wiersema, K.; Datson, J.; Salinas, R.; Mikkelsen, K., and Aghanim, N.  
“VLT/X-Shooter spectroscopy of the afterglow of the Swift GRB 130606A. Chemical abundances and reionisation at  $z \sim 6$ ,” *Astronomy & Astrophysics* 580, A139 (2015).
26. [Krogager](#), J.-K.; Geier, S.; Fynbo, J. P. U.; Venemans, B. P.; Ledoux, C.; Møller, P.; Noterdaeme, P.; Vestergaard, M.; Kangas, T.; Pursimo, T.; Saturni, F. G., and Smirnova, O.  
“The High A<sub>V</sub> Quasar Survey: Reddened Quasi-Stellar Objects Selected from Optical/Near-Infrared Photometry—II,” *The Astrophysical Journal Supplement Series* 217, p. 5 (2015).
27. Zafar, T.; Møller, P.; Watson, D.; Fynbo, J. P. U.; [Krogager](#), J.-K.; Zafar, N.; Saturni, F. G.; Geier, S., and Venemans, B. P.  
“Extinction curve template for intrinsically reddened quasars,” *Astronomy & Astrophysics* 584, A100 (2015).
28. [Krogager](#), J.-K.; Zirm, A. W.; Toft, S.; Man, A., and Brammer, G.  
“A Spectroscopic Sample of Massive, Quiescent  $z \sim 2$  Galaxies: Implications for the Evolution of the Mass-Size Relation,” *The Astrophysical Journal* 797, p. 17 (2014).

29. Toft, S.; Smolčić, V.; Magnelli, B.; Karim, A.; Zirm, A.; Michalowski, M.; Capak, P.; Sheth, K.; Schawinski, K.; **Krogager**, J.-K.; Wuyts, S.; Sanders, D.; Man, A. W. S.; Lutz, D.; Staguhn, J.; Berta, S.; McCracken, H.; Krpan, J., and Riechers, D.  
“Submillimeter Galaxies as Progenitors of Compact Quiescent Galaxies,” *The Astrophysical Journal* 782, p. 68 (2014).
30. Dahle, H.; Gladders, M. D.; Sharon, K.; Bayliss, M. B.; Wuyts, E.; Abramson, L. E.; Koester, B. P.; Groeneboom, N.; Brinckmann, T. E.; Kristensen, M. T.; Lindholmer, M. O.; Nielsen, A.; **Krogager**, J.-K., and Fynbo, J. P. U.  
“SDSS J2222+2745: A Gravitationally Lensed Sextuple Quasar with a Maximum Image Separation of 15.”1 Discovered in the Sloan Giant Arcs Survey,” *The Astrophysical Journal* 773, p. 146 (2013).
31. Fynbo, J. P. U.; Geier, S. J.; Christensen, L.; Gallazzi, A.; **Krogager**, J.-K.; Krühler, T.; Ledoux, C.; Maund, J. R.; Møller, P.; Noterdaeme, P.; Rivera-Thorsen, T., and Vestergaard, M.  
“On the two high-metallicity DLAs at  $z = 2.412$  and  $2.583$  towards Q 0918+1636,” *Monthly Notices of the Royal Astronomical Society* 436, pp. 361–370 (2013).
32. Fynbo, J. P. U.; **Krogager**, J.-K.; Venemans, B.; Noterdaeme, P.; Vestergaard, M.; Møller, P.; Ledoux, C., and Geier, S.  
“Optical/Near-infrared Selection of Red Quasi-stellar Objects: Evidence for Steep Extinction Curves toward Galactic Centers?,” *The Astrophysical Journal Supplement Series* 204, p. 6 (2013).
33. Ilbert, O.; McCracken, H. J.; Le Fèvre, O.; Capak, P.; Dunlop, J.; Karim, A.; Renzini, M. A.; Caputi, K.; Boissier, S.; Arnouts, S.; Aussel, H.; Comparat, J.; Guo, Q.; Hudelot, P.; Kartaltepe, J.; Kneib, J. P.; **Krogager**, J.-K.; Le Floch, E.; Lilly, S.; Mellier, Y.; Milvang-Jensen, B.; Moutard, T.; Onodera, M.; Richard, J.; Salvato, M.; Sanders, D. B.; Scoville, N.; Silverman, J. D.; Taniguchi, Y.; Tasca, L.; Thomas, R.; Toft, S.; Tresse, L.; Vergani, D.; Wolk, M., and Zirm, A.  
“Mass assembly in quiescent and star-forming galaxies since  $z \approx 4$  from UltraVISTA,” *Astronomy & Astrophysics* 556, A55 (2013).
34. **Krogager**, J.-K.; Fynbo, J. P. U.; Ledoux, C.; Christensen, L.; Gallazzi, A.; Laursen, P.; Møller, P.; Noterdaeme, P.; Péroux, C.; Pettini, M., and Vestergaard, M.  
“Comprehensive study of a  $z = 2.35$  DLA Galaxy: mass, metallicity, age, morphology and SFR from HST and VLT,” *Monthly Notices of the Royal Astronomical Society* 433, pp. 3091–3102 (2013).
35. **Krogager**, J.-K.; Fynbo, J. P. U.; Møller, P.; Ledoux, C.; Noterdaeme, P.; Christensen, L.; Milvang-Jensen, B., and Sparre, M.  
“On the sizes of  $z \gtrsim 2$  damped Ly $\alpha$  absorbing galaxies,” *Monthly Notices of the Royal Astronomical Society* 424, pp. L1–L5 (2012).
36. Cupani, G.; Cristiani, S.; D’Odorico, V.; Milvang-Jensen, B., and **Krogager**, J.-K.  
“When two become one: an apparent QSO pair turns out to be a single quasar,” *Astronomy & Astrophysics* 529, A99 (2011).
37. Fynbo, J. P. U.; Ledoux, C.; Noterdaeme, P.; Christensen, L.; Møller, P.; Durgapal, A. K.; Goldoni, P.; Kaper, L.; **Krogager**, J.-K.; Laursen, P.; Maund, J. R.; Milvang-Jensen, B.; Okoshi, K.; Rasmussen, P. K.; Thorsen, T. J.; Toft, S., and Zafar, T.  
“Galaxy counterparts of metal-rich damped Ly $\alpha$  absorbers - II. A solar-metallicity and dusty DLA at  $z_{\text{abs}} = 2.58$ ,” *Monthly Notices of the Royal Astronomical Society* 413, pp. 2481–2488 (2011).

## Submitted Publications

- Fynbo, J. P. U.; Møller, P.; Heintz, K. E.; Burchett, J. N.; Christensen, L.; Geier, S. J.; Jakobsson, P.; **Krogager**, J.-K.; Ledoux, C.; Milvang-Jensen, B.; Noterdaeme, P.; Prochaska, J. X., and Tripp, T. M., “Gaia-assisted discovery of a detached low-ionisation BAL Quasar with very large ejection velocities,” accepted for publication by *Astronomy & Astrophysics*.
- Shukla, G.; Srianand, R.; Gupta, N.; Baker, A. J.; Dutta, R.; Fynbo, J. P. U.; Hilton, M.; Hussain, T.; Jozsa, G. I. G.; **Krogager**, J.-K.; Kulkarni, V.; Momjian, E.; Noterdaeme, P., and Petitjean, P., “Strong Ly $\alpha$  emission from a proximate DLA-galaxy at  $z \approx 2.7$  towards M215445.08–382632.5,” submitted to *Monthly Notices of the Royal Astronomical Society*.
- Hamanowicz, A.; Peroux, C.; Zwaan, M. A.; Rahmani, H.; Pettini, M.; York, D. G.; Klitsch, A.; Augustin, R.; **Krogager**, J.-K.; Kulkarni, V.; Fresco, A.; Biggs, A. D.; Milliard, B., and Vernet, J., “MUSE-ALMA Halos V: Physical properties and environment of  $z < 1.4$  HI quasar absorbers,” accepted for publication by *Monthly Notices of the Royal Astronomical Society*, arXiv:1912.08699.
- Stockmann, M.; Toft, S.; Gallazzi, A.; Zibetti, S.; Conselice, C. J.; Margalef-Bentabol, B.; Zabl, J.; Jørgensen, I.; Magdis, G. E.; Gómez-Guijarro, C.; Valentino, F. M.; Brammer, G. B.; Ceverino, D.; Cortzen, I.; Davidzon, I.; Demarco, R.; Faisst, A.; Hirschmann, M.; **Krogager**, J.-K.; Lagos, C. D.; Man, A. W. S.; Mundy, C. J.; Peng, Y.; Selsing, J.; Steinhardt, C. L., and Whitaker, K. E., “X-shooter Spectroscopy and HST Imaging of 15 Ultra Massive Quiescent Galaxies at  $z \gtrsim 2$ ,” accepted for publication by the *Astrophysical Journal*, arXiv:1912.01619.
- Ranjan, A.; Noterdaeme, P.; **Krogager**, J.-K.; Petitjean, P.; Srianand, R.; Balashev, S. A.; Gupta, N., and Ledoux, C., “Chemical enrichment and host galaxies of extremely-strong intervening DLAs towards quasars,” accepted for publication by *Astronomy & Astrophysics*, arXiv:1911.07851.

## Other Publications

- Rahmani, H.; Noterdaeme, P.; Martins, C.; Cooke, R.; **Krogager**, J.-K.; Murphy, M.; Molaro, P.; Leite, A. C.; Fumagalli, M., and Howk, J. C., “Quasar absorption lines as astrophysical probes of fundamental physics and cosmology,” *Astro2020: Decadal Survey on Astronomy and Astrophysics*, p. 172 (2019).
- The MSE Science Team, “The Detailed Science Case for the Maunakea Spectroscopic Explorer, 2019 edition,” arXiv:1904.04907 (2019).
- Krogager**, J.-K., “VoigtFit: A Python package for Voigt profile fitting,” arXiv:1803.01187 (2018), Astrophysics Source Code Library, ascl:1811.016, <https://github.com/jkrogager/VoigtFit>.
- Christensen, L.; Møller, P.; Rhodin, H.; **Krogager**, J.-K., and Fynbo, J. P. U., “The mass-metallicity relation of absorption selected high-redshift galaxies,” *Proceedings of IAU Symposium ‘Formation and Evolution of Galaxy Outskirts,’* vol. 321, pp. 357–359 (2017).
- Gupta, N.; Srianand, R.; Baan, W.; Baker, A. J.; Beswick, R. J.; Bhatnagar, S.; Bhattacharya, D.; Bosma, A.; Carilli, C.; Cluver, M.; Combes, F.; Cress, C.; Dutta, R.; Fynbo, J.; Heald, G.; Hilton, M.; Hussain, T.; Jarvis, M.; Jozsa, G.; Kamphuis, P.; Kembhavi, A.; Kerp, J.; Kloeckner, H. R.; **Krogager**, J.-K.; Kulkarni, V. P.; Ledoux, C.; Mahabal, A.; Mauch, T.; Moodley, K.; Momjian, E.; Morganti, R.; Noterdaeme, P.; Oosterloo, T.; Petitjean, P.; Schroeder, A.; Serra, P.; Sievers, J.; Spekkens, K.; Vaisanen, P.; van der Hulst, T.; Vivek, M.; Wang, J.; Wong, O. I., and Zungu, A. R., “The MeerKAT Absorption Line Survey (MALS),” In proceedings, *MeerKAT Science: On the Pathway to the SKA*, p. 14, arXiv:1708.07371 (2016).
- Krogager**, J.-K., “Galaxies in the Early Universe characterized in absorption and emission,” *PhD Thesis*, defended on Nov 6<sup>th</sup>, 2015, arXiv:1604.06230.