List of Publications

Ali Ahmad Khostovan

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FIRST-AUTHOR REFEREED PUBLICATIONS (10 PAPERS)

1. **A. A. Khostovan**, R. L. Sanders, et al. (2026)
The AURORA Survey: The Mass – Metallicity and Fundamental Metallicity Relations at $z \sim 2.3$ based only on Direct T_e Constraints
ApJL, 1003, L41
2. **A. A. Khostovan**, J. Kartaltepe, et al. (2026)
COSMOS Spectroscopic Redshift Compilation (First Data Release): 488k Redshifts Encompassing Two Decades of Spectroscopy
ApJS, 282, 6
3. **A. A. Khostovan**, J. Kartaltepe, et al. (2025)
EELG1002: A Record-Breaking [OIII]+Hβ EW ~ 3700Å Galaxy at $z \sim 0.8$ – Analog of Early Galaxies?
ApJ, 994, 34
4. **A. A. Khostovan**, S. Malhotra, J. Rhoads, et al. (2024)
Evolution of Hα Equivalent Widths from $z \sim 0.4 - 2.2$: implications for star formation and legacy surveys with *Roman* and *Euclid*
MNRAS, 535, 2903
5. **A. A. Khostovan**, S. Malhotra, J. Rhoads, et al. (2021)
Correlations between Hα Equivalent Width and Galaxy Properties at $z = 0.47$: Physical or Selection-Driven?
MNRAS, 503, 5115
6. **A. A. Khostovan**, S. Malhotra, J. Rhoads, et al. (2020)
A large, deep 3 deg^2 survey of Hα, [OIII], and [OII] emitters from LAGER: constraining luminosity functions
MNRAS, 493, 3966
7. **A. A. Khostovan**, D. Sobral, B. Mobasher, et al. (2019)
The clustering of typical Lyα emitters from $z \sim 2.5 - 6$: host halo masses depend on Lyα and UV luminosities
MNRAS, 489, 555
8. **A. A. Khostovan**, D. Sobral, B. Mobasher, et al. (2018)
The clustering of Hβ+[OIII] and [OII] emitters since $z \sim 5$: dependencies with line luminosity and stellar mass
MNRAS, 478, 2999
9. **A. A. Khostovan**, D. Sobral, B. Mobasher, et al. (2016)
The nature of Hβ+[OIII] and [OII] emitters to $z \sim 5$ with HiZELS: stellar mass functions and the evolution of EWs
MNRAS, 463, 2363 · Press release
10. **A. A. Khostovan**, D. Sobral, B. Mobasher, et al. (2015)
Evolution of the Hβ+[OIII] and [OII] Luminosity Functions and the [OII] Star-Formation History of the Universe up to $z \sim 5$
MNRAS, 452, 3948

CO-AUTHOR PUBLICATIONS (51 PAPERS)

1. F. Ubertosi, I. Delvecchio, ..., **A. A. Khostovan** et al. (submitted)
Prevalence of radio Active Galactic Nuclei in galaxy groups since $z = 3.5$ in the COSMOS-Web field
A&A, submitted. arXiv:2610.10719
2. G. Gozaliasl, G. Hasinger, ..., **A. A. Khostovan** et al. (submitted)
X-ray Characterization of Galaxy Groups and Hickson Groups in COSMOS-Web to $z \sim 3.8$ I. X-ray Luminosity Function Evolution
A&A, submitted. arXiv:2610.02470

3. M. Franco, C. Casey, ..., **A. A. Khostovan** et al. (submitted)
Physical properties of galaxies and the UV Luminosity Function from $z \sim 6$ to $z \sim 14$ in COSMOS-Web
ApJ, submitted. (past first review stage) arXiv:2508.04791

4. T. Tanaka, H. Akins, ..., **A. A. Khostovan** et al. (2026)
EMBER: A Little Red Dot Candidate at $z_{\rm spec} = 10.36$ in the Seed Black Hole Era
ApJL, accepted 10/31/2026

5. I. Cox, J. Kartaltepe, ..., **A. A. Khostovan** et al. (2026)
The CEERS Photometric and Physical Parameter Catalog
ApJS, 1005, 62

6. H. Hatamnia, S. Taamoli, ..., **A. A. Khostovan** et al. (2026)
Large-Scale Structure in COSMOS-Web: Tracing Galaxy Evolution in the Cosmic Web up to $z \sim 7$ with the Largest JWST Survey
ApJ, 1002, 192

7. R. Sanders, A. Shapley, ..., **A. A. Khostovan** et al. (2026)
The AURORA Survey: High-Redshift Empirical Metallicity Calibrations from Electron Temperature Measurements at $z = 2 - 10$
ApJ, 1003, 228

8. F. Abedini, G. Gozaliasl, ..., **A. A. Khostovan** et al. (2026)
COSMOS-Web: Estimating Physical Parameters of Galaxies Using Self-Organizing Maps
MNRAS, 548, 337

9. D. Kakkad, I. Lazar, ..., **A. A. Khostovan** et al. (2026)
Multi-wavelength morphology and dust emission in low-redshift dwarf galaxies in COSMOS-Web with *HST* and *JWST*
MNRAS, 547, 267

10. S. Jain, R. Sanders, **A. A. Khostovan** et al. (2026)
A Uniform Analysis of Gas-phase Metallicity Evolution with 1-3 Gyr Time Sampling over the Past 12 Billion Years
ApJ, 1000, 109

11. Z. Ghaffari, G. Gozaliasl, ..., **A. A. Khostovan** et al. (2026)
Star formation quenching precedes morphological transformation in COSMOS-Web's richest galaxy groups
A&A, 708, 129

12. N. Reddy, A. Shapley, ..., **A. A. Khostovan** et al. (2026)
The JWST/AURORA Survey: Multiple Balmer and Paschen Emission Lines for Individual Star-forming Galaxies at $z = 1.5 - 4.4$. I. A Diversity of Nebular Attenuation Curves and Evidence for Non-Unity Dust Covering Fractions
ApJ, 999, 15

13. G. Toni, M. Maturi, ..., **A. A. Khostovan** et al. (2026)
COSMOS-Web galaxy groups: Evolution of red sequence and quiescent galaxy fraction
A&A, 707, 87

14. A. Faisst, S. Fujimoto, ..., **A. A. Khostovan** et al. (2026)
The ALPINE-CRISTAL-JWST Survey: JWST/IFU Optical Observations for 18 Main-Sequence Galaxies at $z = 4 - 6$
ApJS, 282, 19

15. D. Berg, R. Sanders, ..., **A. A. Khostovan** et al. (2026)
The AURORA Survey: Robust Helium Abundances at High Redshift Reveal A Subpopulation of Helium-Enhanced Galaxies in the Early Universe
ApJ, 996, 68

16. M. Shuntov, H. Akins, ..., **A. A. Khostovan** et al. (2025)
COSMOS2025: The COSMOS-Web galaxy catalog of photometry, morphology, redshifts, and physical parameters from JWST, HST, and ground-based imaging
A&A, 704, 339

17. T. Tanaka, H. Akins, ..., **A. A. Khostovan** et al. (2025)
Discovery of a Little Red Dot candidate at $z > 10$ in COSMOS-Web based on MIRI-NIRCam selection
ApJ, 995, 21

18. E. Kehoe, A. Shapley, ..., **A. A. Khostovan** et al. (2025)
The AURORA Survey: Tracing Galactic Outflows at $z > 2.5$ with JWST/NIRSpec NUV Absorption Lines
ApJ, 994, 170

19. G. Gozaliasl, L. Yang, ..., **A. A. Khostovan** et al. (2025)
Brightest group galaxies in COSMOS-Web: Evolution of the size-mass relation since $z = 3.7$
A&A, 703, A129

20. C. Scarlata, W. Hu, ..., **A. A. Khostovan** et al. (2025)
Systematic Bias in Ionizing Radiation Escape Fraction Measurements from Foreground Large-Scale Structures
ApJ, 985, 115

21. G. Toni, G. Gozaliasl, ..., **A. A. Khostovan** et al. (2025)
The COSMOS-Web deep galaxy group catalog up to $z = 3.7$
A&A, 697, A197

22. M. Shuntov, S. Jin, ..., **A. A. Khostovan** et al. (2025)
The COSMOS-Web ring: Spectroscopic confirmation of the background source at $z = 5.1$
A&A, 696, L14

23. H. Wade, T. Cornish, ..., **A. A. Khostovan** et al. (submitted)
Y-band Narrowband Survey in COSMOS (Y-NBS): deep and wide luminosity functions and the cosmic star-formation rate density from Hα, [OIII], and [OII] emitters at $z < 2$
MNRAS, submitted 12/13/2024 (not on arXiv yet)

24. A. Bianchetti, F. Sinigaglia, ..., **A. A. Khostovan** et al. (2025)
New constraints on the evolution of the $M_{\rm HI} - M^\star$ scaling relation combining CHILES and MIGHTEE-HI data
ApJ, 982, 82

25. A. Faisst, M. Brinch, ..., **A. A. Khostovan** et al. (2025)
COSMOS-Web: The Role of Galaxy Interactions and Disk Instabilities in Producing Starbursts at $z < 4$
ApJ, 980, 2

26. B. Kalita, T. Suzuki, ..., **A. A. Khostovan** et al. (2025)
Clumps as multiscale structures in cosmic noon galaxies
MNRAS, 536, 3090

27. S. Malhotra, J. Rhoads, ..., **A. A. Khostovan** et al. (2024)
REX, the reionization explorer: science and mission overview
Proc. SPIE, 13092, 130920U

28. F. Sinigaglia, G. Rodighiero, ..., **A. A. Khostovan** et al. (2024)
MIGHTEE-HI: HI galaxy properties in the large-scale structure environment at $z \sim 0.37$ from a stacking experiment
MNRAS, 529, 4192

29. S. Rezaee, N. Reddy, ..., **A. A. Khostovan** et al. (2023)
Exploring the correlation between Hα-to-UV ratio and burstiness for typical star-forming galaxies at $z \sim 2$
MNRAS, 526, 1512

30. C. Casey, J. Kartaltepe, ..., **A. A. Khostovan** et al. (2023)
COSMOS-Web: An Overview of the JWST Cosmic Origins Survey
ApJ, 954, 31

31. S. Harish, I. Wold, S. Malhotra, ..., **A. A. Khostovan** et al. (2022)
New spectroscopic confirmations of Lyα emitters at $z \sim 7$ from the LAGER survey
ApJ, 934, 167

32. I. Wold, S. Malhotra, J. Rhoads, ..., **A. A. Khostovan** et al. (2022)
LAGER Lyα Luminosity Function at $z \sim 7$: Implications for Reionization
ApJ, 927, 36

33. S. Rezaee, N. Reddy, ... **A. A. Khostovan** et al. (2021)
Variation of the nebular dust attenuation curve with the properties of local star-forming galaxies
MNRAS, 506, 3588

34. S. Santos, D. Sobral, ..., **A. A. Khostovan** et al. (2021)
The Evolution of the UV luminosity and Stellar Mass Functions of Lyα emitters from $z \sim 2$ to $z \sim 6$
MNRAS, 505, 1117

35. W. Hu, J. Wang, L. Infante, ..., **A. A. Khostovan** et al. (2021)
A Lyman-α protocluster at redshift 6.9
Nature Astronomy, 5, 485

36. S. Harish, A. Coughlin, J. Rhoads, ..., **A. A. Khostovan** et al. (2020)
A Comprehensive Study of Hα Emitters at $z \sim 0.62$ in the DAWN Survey: the Need for Deep and Wide Regions
ApJ, 892, 30

37. W. Hu, J. Wang, Z. Zheng, ..., **A. A. Khostovan** et al. (2019)
The Lyα Luminosity Function and Cosmic Reionization at $z \sim 7.0$: a Tale of Two LAGER Fields
ApJ, 886, 90

38. M. Jafariyazani, B. Mobasher, ..., **A. A. Khostovan** et al. (2019)
Spatially Resolved Properties of Galaxies from CANDELS+MUSE: Radial Extinction Profile and Insights on Quenching
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39. Z. Zheng, J. Rhoads, J. Wang, ..., **A. A. Khostovan** et al. (2019)
Design for the First Narrowband Filter for the Dark Energy Camera: Optimizing the LAGER Survey for $z \sim 7$ Galaxies
PASP, 131, 4502

40. D. Sobral, S. Santos, J. Matthee, ..., **A. A. Khostovan** et al. (2018)
Slicing COSMOS with SC4K: the evolution of typical Lyα emitters and the Lyα escape fraction from $z \sim 2$ to $z \sim 6$
MNRAS, 476, 4725

41. T. Suzuki, T. Kodama, M. Onodera, ..., **A. A. Khostovan** et al. (2017)
The interstellar medium in [OIII]-selected star-forming galaxies at $z \sim 3.2$
ApJ, 849, 39

42. J. Matthee, D. Sobral, P. N. Best, **A. A. Khostovan** et al. (2017)
The production and escape of Lyman-Continuum radiation from star-forming galaxies at $z \sim 2$ and their redshift evolution
MNRAS, 465, 3637

43. H. Nayyeri, S. Hemmati, B. Mobasher, ..., **A. A. Khostovan** et al. (2017)
CANDELS Multi-wavelength Catalogs: Source Identification and Photometry in the CANDELS COSMOS Survey Field
ApJS, 228, 7

44. T. Suzuki, T. Kodama, D. Sobral, **A. A. Khostovan** et al. (2016)
[O III] emission line as a tracer of star-forming galaxies at high redshifts: comparison between Hα and [OIII] emitters at $z = 2.23$ in HiZELS
MNRAS, 462, 181

45. D. Sobral, J. Matthee, P. N. Best, I. Smail, **A. A. Khostovan** et al. (2015)
CF-HiZELS, a 10 deg^2 emission-line survey with spectroscopic follow-up: Hα, [OIII], and [OII] luminosity functions and sample variance at $z = 0.8$, 1.4, and 2.2
MNRAS, 451, 2303

46. S. Kim, J. Wardlow, A. Cooray, S. Fleuren, W. Sutherland, **A. A. Khostovan**, et al. (2012)
Spitzer IRAC Identification of Herschel-ATLAS SPIRE Sources
ApJ, 756, 28

47. R. Hopwood, J. Wardlow, A. Cooray, **A. A. Khostovan**, et al. (2011)
Spitzer Imaging of Herschel-ATLAS Gravitationally Lensed Submillimeter Sources
ApJL, 728, L4

48. A. M. Koekemoer, S. M. Faber, ... **A. A. Khostovan**, et al. (2011)
CANDELS: The Cosmic Assembly Near-infrared Deep Extragalactic Legacy Survey - The Hubble Space Telescope Observations, Imaging Data Products and Mosaics
ApJS, 197, 36

49. A. Amblard, A. Cooray, ... **A. A. Khostovan**, et al. (2011)
Sub-millimetre galaxies reside in dark matter halos with masses greater than 3×10^{11} solar masses
Nature, 470, 510

50. A. Cooray, ... **A. A. Khostovan**, et al. (2010)
The Herschel-SPIRE Legacy Survey (HSLS): the scientific goals of a shallow and wide submillimeter imaging survey with SPIRE
White Paper

51. A. Cooray, ... **A. A. Khostovan**, et al. (2010)
HerMES: Halo Occupation Number and Bias Properties of Dusty Galaxies from Angular Clustering Measurements
A&A, 518, L22