Ali Ahmad Khostovan

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RESEARCH INTERESTS

I investigate how galaxies assemble stellar mass and chemically enrich their ISM across cosmic time, combining imaging & spectroscopic surveys with statistical inference, machine learning, and archival science.

Galaxy Growth & Star Formation. Stellar mass assembly, emission-line populations, galaxy–halo connections, environmental quenching, and ionizing-photon production and escape.

Chemical Enrichment & Stellar Populations. Gas-phase and stellar metallicities, star-formation histories, abundance patterns, the baryon cycle, and extreme emission-line galaxies.

Archival Science & Data-Driven Discovery. Spectroscopic archives, community data products, machine learning, optimizing targeting strategies, and science-ready resources for *HST*, *JWST*, *Roman*, and future observatories.

PUBLICATION RECORD

ALL PUBLICATIONS		FIRST-AUTHOR		CITATION INDICES			
61	**4,893**	**10**	**433**	**26**	**47**	**57**	**1.5**
papers	citations	papers	citations	h-index	i10-index	g-index	m-index

Source: NASA ADS/SciX, November 2026. Full list of publications appended.

APPOINTMENTS

Assistant Professor of Practice, *University of the Pacific* — Sep 2026 – present
Department of Physics & Astronomy

Scientist II, *University of Kentucky, Lexington* — Sep 2024 – Sep 2026
Supervisor: Prof. Ryan Sanders

Postdoctoral Research Associate, *Rochester Institute of Technology* — Sep 2021 – Sep 2024
Supervisor: Prof. Jeyhan Kartaltepe

Visiting Researcher, *NASA Goddard Space Flight Center* — Oct 2021 – Dec 2022

NASA Postdoctoral Program Fellow, *NASA Goddard Space Flight Center* — Sep 2018 – Sep 2021
Supervisors: Dr. Sangeeta Malhotra & Dr. James Rhoads

EDUCATION

PhD, Physics, *University of California, Riverside* — 2013 – 2018
Advisers: Prof. Bahram Mobasher & Dr. David Sobral (Lancaster Univ.)
Dissertation: *The Evolution of Star-Forming Galaxies using the Largest Narrowband Surveys*

MS, Physics, *University of California, Riverside* — 2012 – 2013
Advisers: Prof. Bahram Mobasher & Dr. David Sobral (Univ. of Lisbon)

BS, Physics (Specialization in Astrophysics), *University of California, Irvine* — 2008 – 2012
Honors – *Cum Laude*. Adviser: Prof. Asantha R. Cooray

RESEARCH FELLOWSHIPS

NASA Postdoctoral Program Fellow Sep 2018 – Sep 2021
NASA Earth & Space Sciences (now FINESST) PhD Fellow 2016 – 2018
Chancellor's Distinction Fellow 2012 – 2013
Harvard SAO/CfA REU Intern Jun – Aug 2011
Undergraduate Research Opportunities Program Fellow Jan – Jun 2011
Summer Undergraduate Research Program Fellow Jun – Sep 2010

TEACHING

Courses & Teaching Forums

General Physics I (PHYS23), *Instructor* Fall 2026
Students study the physics of mechanics and motion, rotation, fluids, and thermodynamics.

General Physics II (PHYS25), *Instructor* Fall 2026
Students study acoustics and waves, electricity and magnetism, quantum mechanics and relativity.

astroTopics 2017 – 2018; 2022 – 2024
A get together I started during my PhD years and restarted at RIT for Jeyhan Kartaltepe's group. It is a collective community-based learning approach. Topics are selected by popular vote and everyone is given a week to research the topic (e.g., papers, books, lectures). We then reconvene and discuss the topic and what we learned. This places all participants at an equal level regardless of academic rank. My role is to moderate the discussions, contribute my own input, and ensure a safe, learning environment for everyone.

History of the Universe, *Teaching Assistant* Spring 2015
An introduction to "The Big Bang" model and its observational tests. Topics include dark energy, dark matter, rapid growth of universe at early times, leftover radiation from "The Big Bang", galaxy formation, bending of light by gravity, black holes, extraterrestrial life, and the likely fate of the universe.

The Violent Universe, *Teaching Assistant* Winter 2014 & 2015
An introduction to violent phenomena that power the universe, specifically phenomena that illustrate basic astrophysical principles. Topics include impacts in our planetary system: explosions of stars, bursts of star formation, galaxy collisions, black holes, quasars, cosmic jets, and the "Big Bang".

Origins, *Teaching Assistant* Fall 2013, 2014, 2015
Explores the most fundamental questions in cosmology, physics, and chemical sciences through their origins. Topics include the origin of the Universe, origin of matter, first generation of stars and galaxies, origin of chemical elements, chemistry of life, and astrobiology.

General Physics Lab, *Teaching Assistant* Winter 2013, Spring 2013 & 2014, Summer 2015
Covers topics in mechanics, thermodynamics, and electromagnetism. Includes fluid mechanics, temperature, and heat, the laws of thermodynamics, kinetic theory of gases, electric fields and potentials, current and DC circuits, capacitance and inductance, magnetism, and Faraday's law.

General Physics Discussion, *Teaching Assistant* Winter 2013
Same topics as General Physics Lab.

Undergraduate Teaching Assistant Supervision

David Valencia, *Pacific undergraduate; PHYS23* Fall 2026
Yasmeen Vargas, *Pacific undergraduate; PHYS25* Fall 2026

Teaching Testimonials from Students

Original reviews available upon request.

"*Ali was an amazing TA! I learned a lot from his class – more than I learned in lecture, actually. I'm really glad he was my TA for Physics 5. You can tell that he's passionate about what he teaches and he's always eager to clarify things for the class. He always had a Powerpoint ready for discussion and it was ALWAYS helpful. Great job, Ali!*"

"*I was able to learn about the material I either missed or didn't understand thanks to Ali. I really liked the way he taught his discussion section as he would provide topics from the lectures and provide questions in order for us to gain a clear understanding of all the materials. Ali is a great guy and a pretty good TA, due to the fact that he was very interested in what he had to teach.*"

"He made things much easier to understand and he's very clear in his explanations. He really understood the topic and I like how he makes questions to talk about during class."

"Ali is very enthusiastic about the subject he teaches, and the environment he creates is very positive and comfortable. He's good at explaining concepts and clarifying anything we don't understand from lecture."

"Ali is a great TA. It's great that he interacts with the class and gets us to answer questions."

"Ali was one of my favorite TAs because he really helped me understand the material. The questions he put in his powerpoint presentations helped me so much. He was really effective and helpful."

"He is the best TA. I think I understand discussion better than lecture. He goes over the most important material from lecture. Very helpful TA!"

"Ali was very helpful and encouraged people to participate. I think he tried his best to engage the class and reviewed as much material as possible. He also was very knowledgeable in the subject. Great job."

MENTORSHIP

Graduate Students (13 in total)

Ali Hadi, *UCR PhD student* — 2026 – present
Mansi Gupta, *Univ. of Kentucky PhD student* — 2024 – present
Shweta Jain, *Univ. of Kentucky PhD student* → now Postdoctoral Fellow at MPIE, Garching — 2024 – 2026
Carter Flayhart, *RIT PhD student* — 2024 – present
Sadie Coffin, *RIT PhD student & NASA FINESST Fellow* — 2021 – present
Jitrapon Lertprasertpong, *RIT PhD student* — 2021 – present
Isa Cox, *RIT PhD student* — 2021 – present
Brittany Vanderhoof, *RIT PhD student* → now STScI Test Engineer II — 2021 – 2023
Saeed Rezaee, *UCR PhD student* → now Data Scientist at Apple — 2020 – 2023
Santosh Harish, *ASU PhD student* → now STScI Postdoc — 2018 – 2022
Lucia Perez, *ASU PhD student* → now Princeton FFFP Fellow — 2018 – 2019
Nima Chartab Soltani, *UCR PhD student* → now NED Staff Scientist at IPAC — 2017 – 2020
Marziye Jafariyazani, *UCR PhD student* → now Astronomical Data Scientist at SETI — 2017 – 2019

Undergraduate Students (2 in total)

Ash Bista, *RIT undergraduate* — 2022 – 2023
Mehruba Zaman, *UCR undergraduate; NASA FIELDS Intern* — Jan – Jun 2017

AWARDED FUNDING (PI; TOTAL ≈ $360,000)

Keck PI Award, *$13,975* — 2022 – 2024
NASA Postdoctoral Program Fellowship, *$234,672* — 2018 – 2021
NASA Earth & Space Sciences Fellowship, *$75,000* — 2016 – 2018
Chancellor's Distinction Fellowship, *$32,550* — 2012 – 2013
Undergraduate Research Opportunities Program (UROP), *$1,000* — 2011
Summer Undergraduate Research Program (SURP), *$1,500* — 2010

AWARDS

Anne Kernan Award for Outstanding Senior Graduate Student Researcher — Jun 2018
Prestigious award given to senior PhD students for their research and achievements throughout their graduate school years

Outstanding Teaching Assistant Award — Jun 2018
Awarded to students for demonstrating effective teaching skills (see testimonials)

GSA Conference Travel Grant — Jun – Jul 2016
Funding from Graduate Student Association to attend a conference

National Science Foundation Graduate Research Fellowship 2012, 2013, 2014
Honorable Mention (3 times)

Chambliss Astronomy Achievement Student Award Jan 2012
Honorable Mention – 219th AAS Meeting

OBSERVING TIME

Awarded Observing Time (PI)

Gemini Fast Turnaround (GS-2024A-FT-104), *PI, 2 hours GMOS-S* 2024
"Spectroscopic confirmation of JWST-ER1 with Lyα" (Co-PI: Wilfried Mercier, LAM)

ESO VLT (0113.B-0330(A)), *PI, 24.2 hours X-SHOOTER* 2024
"Constraining Electron Densities at $z \sim 5$: A Dual [OII] – CIII] X-SHOOTER Survey"

Gemini Fast Turnaround (GS-2023A-FT-201), *PI, 2 hours Flamingos-2* 2023
"Strong Outflows from a $z \sim 2.5$ CIV emitter: Star-forming or AGN driven?"

Keck 2022B (PID 88/2022B N190), *PI, 2 half-nights MOSFIRE* 2022
"Confirmation of the Highest Redshift [OII] Emitters at $z \sim 5$"

Pending Proposals (PI; submitted Sep – Oct 2026)

Intense Star Formation or Dust-Obscured AGN? Testing What Drives the Most Extreme [OIII]+Hβ Equivalent Widths *JWST* Cycle 6
Request: 3.9 hours MIRI & NIRCam imaging

What Powers Extreme Emission-Line Galaxies During Reionization? *JWST* Cycle 6
Request: 25.6 hours NIRSpec/G140M+G395M

Star Formation or an Obscured AGN? Mapping an Extreme Outflow in a Massive Galaxy at Cosmic Noon *JWST* Cycle 6
Request: 7.5 hours NIRSpec IFU + MIRI imaging

Stellar Feedback or Black-Hole Accretion? Testing the Origin of the Fast Ionized-Gas Outflow in HiZELS-18142 ESO/VLT P118
Request: 3 hours X-SHOOTER

What Powers the Most Extreme Emission-Line Galaxies? ESO/VLT P118
Request: 38 hours X-SHOOTER

Testing the Driver of a Fast Ionized-Gas Outflow in a Massive Galaxy at Cosmic Noon Keck 2027A
Request: 0.5 night Keck/MOSFIRE

Awarded Observing Time (Co-I)

***Roman* Cycle 1 GAS 2003**, *Co-I, General Astrophysics Survey* 2026
"GRACE: The Grism Reionization And Cosmic Evolution Survey"

***Roman* Cycle 1 AR 19107**, *Co-I, Analysis* 2026
"Unveiling the Hidden Web: Calibrating Roman Galaxy Environments via IGM Tomography"

***JWST* Cycle 5 GO 9483**, *Co-I, 18.7 hours MIRI LRS* 2026
"Pushing Little Red Dots to the Early Universe: Spectroscopic Confirmation of the First Robust $z \sim 10$ LRD Candidate"

IRAM W25DF, *Co-I, 24 hours NOEMA 1-mm* 2025
"Connecting Molecular Gas, Dust, Star Formation and Metals at Cosmic Noon"

***JWST* Cycle 4 GO 9026**, *Co-I, 9.8 hours MIRI MRS* 2025
"An extraordinary $z = 4.4$ starburst as a detailed astrophysical laboratory to solve Cosmic Dawn mysteries"

***HST* Cycle 32 GO 17802**, *Co-I, 214 orbits WFC3-UVIS+IR & ACS/WFC Imaging* 2024
"CLUTCH: The COSMOS Legacy UV-Optical Treasury Campaign with Hubble"

***JWST* Cycle 3 GO 5398**, *Co-I, 400 hours NIRCam WFSS* 2024
"POPPIES: The Public Observation Pure Parallel Infrared Emission-Line Survey"

IRAM W24EQ, *Co-I, 5 hours NOEMA 1-mm* 2024
"Gas and Dust in a Remarkably Mature $z \sim 7$ Galaxy"

IRAM W25DK, *Co-I, 24 hours NOEMA 1-mm* 2024
"Connecting Molecular Gas, Dust, Star Formation and Metals at Cosmic Noon"

***JWST* Cycle 1 GO 2321**, *Co-I, 40.5 hours NIRCam Imaging* 2022
"The first blind Hα narrow-band survey of star-formation at $z > 6$"

***JWST* Cycle 1 GO 1635**, *Co-I, 35.2 hours NIRCam Imaging & NIRSpec MOS* 2022
"Galaxy Protoclusters as Drivers of Cosmic Reionization"

ESO VLT (0100.A-0213(A)), *Co-I, 2.9 hours X-SHOOTER* 2018
"Is COLA1 the First Luminous Double Peaked Lyα Emitter at $z = 6.6$, or a $z = 1.47$ [OII] emitter?"

ESO VLT (095.A-0810(A)), *Co-I, 13.5 hours SINFONI IFU* 2016
"SINFONI-HiZELS at $z = 3.23$: Tracing the Formation and Evolution of Star-forming Galaxies"

NAOJ Subaru (S14A-086), *Co-I, 2 nights FMOS* 2014
"Completing Subaru-HiZELS: a uniquely matched Hα & [OII] survey at $z = 1.5$"

***Spitzer* PID 80156**, *Co-I, 122 pointings Spitzer* 2011
"Spitzer Imaging of Herschel Lensed Sub-mm Galaxies"

Observing Experience (22 nights)

Blanco 4m Telescope CTIO, Chile
DECam (photometry): 1.5 nights

W. H. Keck Observatory Mauna Kea, Hawaii
DEIMOS (spectra): 8 nights · MOSFIRE (spectra): 9.5 nights

Subaru Telescope Mauna Kea, Hawaii
FMOS (spectra): 1 night

William Herschel Telescope La Palma, Canary Islands, Spain
ISIS (spectra): 2 nights

COLLABORATION MEMBERSHIPS

GRACE, *Large Roman International Collaboration* 2026 – present
AURORA, *Mid-size JWST International Collaboration* 2024 – present
CLUTCH, *Large HST International Collaboration* 2024 – present
POPPIES, *Large JWST International Collaboration* 2024 – present
COSMOS-Web, *Large JWST International Collaboration* 2021 – present
Redshift Wrangler, *Small RIT-based Citizen Science Team* 2021 – present
JELS, *Mid-size JWST International (heavily European) Collaboration* 2021 – present
CIDER, *Mid-size CTIO Collaboration Involving Chile & China* 2018 – present
LAGER, *Mid-size CTIO Collaboration Involving Chile & China* 2018 – present
DAWN, *Mid-size Collaboration Involving Chile & China* 2018 – present
COSMOS, *Large International Collaboration* 2018 – present
X-GAL, *International Collaboration: includes SC4K and HiZELS* 2012 – 2022
CANDELS, *Large US-based HST Collaboration* 2008 – 2012
H-ATLAS, *Large Herschel Space Observatory International Collaboration* 2008 – 2012

PROFESSIONAL SERVICE

ESO/VLT P118 Distributed Peer Review, *Expert Reviewer* 17 Nov 2026
Served as an Expert on reviewing and grading proposals for ESO/VLT time

Infrared Spectroscopy from Space, *Session Chair* 8 Oct 2025
Served as the PAH & Dust Session Chair

Early Career Path Discussion, *Career Panelist* 23 May 2025
- Discussion Lead on career pathways for PhD students & Postdocs during COSMOS Team Meeting in Marseille, FR
- Audience included mix of senior faculty to PhD Students
- Motivated for Senior Faculty to share their insights on what happens on hiring committees

***JWST* Cycle 4 Panel Review**, *External Panelist* 2025
Served as an Expert on reviewing and grading for *JWST* Cycle 4 proposals

***HST* Cycle 32 Executive Committee**, *External Panelist* 2024
Served as an Expert on reviewing and grading Large *HST* Cycle 32 proposals

NASA FINESST Review Panel, *Expert Reviewer* 2021, 2023
- Served as an expert reviewer evaluating PhD student proposals to support their research & studies
- Duties involved critiquing, grading, discussing with panelists, and ranking proposals

Gemini Fast Turnaround Time Allocation Committee, *Proposal Reviewer* Jan 2023
- Served as a panelist reviewing proposals that were submitted as part of Gemini Observatory's Fast Turnaround Program
- Duties involved reading, critiquing, and assigning grades and recommendations on which observing proposal should be awarded observing time

RIT Galaxy Evolution Journal Club, *Founder & Organizer* 2022 – 2024
Moderated discussions of the latest Galaxy Evolution journal papers

RIT Science Jamboree, *Presentation Judge* Oct 2021 & 2022
Duties involved judging 10 minute presentations of RIT MSc & PhD astronomy students, reviewing rankings with committee, and awarding the top 3 best presentations

Emission Lines in Galaxies: Discovery and Diagnostics, *Co-organizer of Conference* Jun 2021
Duties involved reviewing submitted abstracts, sending invitations to invited speakers, addressing logistics, and serving as chair for a session

NASA ADAP Review, *Panelist/Reviewer* 2020
- Reviewed large proposals requesting research funds for analysis of archival datasets
- Duties involved critique, grading, and ranking of science proposals that would make use of NASA-supported science archives

Chambliss Astronomy Achievement Award, *Judge* Winter 2020
Judged several science posters of undergraduate and graduate astronomy students at the American Astronomical Society Meeting

PUBLIC OUTREACH & SCIENCE COMMUNICATION

Pacific STEM Exploration Day, *Exhibitor* Oct 2026
Showcased the Physics & Astronomy Program, the department's research, and presented physics demos for high school students interested in applying to the University of the Pacific.

COSMOS Spotlight Article, *Science Journalism* Oct 2025
Featured article highlighting the COSMOS Spectroscopic Redshift Compilation and its scientific impact.

From Bachelor's to PhD & Beyond, *Career Speaker* Oct 2025
Presented career pathways in astronomy to the Society of Physics Students at UC Irvine.

Astronomy on Tap, *Invited Speaker* Oct 2024
Public talk: *Revisiting the Past: Maximizing the Legacy & Accessibility of Maunakea Spectroscopy*.

KID Museum Grand Opening, *Exhibitor* May 2022
Led a robotics and drone programming exhibit in partnership with the University of Maryland.

***JWST* Press Release**, *Interviewee* Dec 2021
Featured in RIT press coverage discussing early *JWST* science.

AST Graduate Skills Seminar, *Career Panelist* Oct 2021
Panel discussion on postdoctoral careers and the astronomy job market.

Virtual Science Night & Career Panel, *Lecturer* Feb 2021
Delivered science presentations and STEM career guidance to high-school students.

What is an Astronomer?, *Guest Lecturer* Jun 2019
Public outreach presentation introducing astronomy to preschool students.

Public Telescope Observation, *Telescope Operator* Feb 2018
Operated telescopes and engaged the public during community observing events.

Press Release: Distant Galaxies Glow Bright in Oxygen, *Science Journalism* Oct 2016
Public dissemination of results from Khostovan et al. (2016) through international science media outlets.

Long Night of Arts and Innovation, *Exhibitor* 2015, 2017
Conducted astronomy outreach and telescope demonstrations for the Riverside community.

Cosmic Thursday, *Volunteer Organizer & Telescope Operator* 2014 – 2016
Organized public astronomy events and operated telescopes during monthly outreach programs.

Physics of Music, *Musician & Guest Lecturer* 2013
Presented the physics and acoustics of traditional Iranian musical instruments.

PRESENTATIONS

Invited Talks

SPQR Team Meeting, *Remote (Zoom)* 27 Feb 2026
"An ultradeep *Roman* grism survey: Chemical Enrichment & EELG Prospects at Cosmic Noon"

SPQR Team Meeting, *Remote (Zoom)* 31 Oct 2025
"Cosmic Noon Science with *Roman*: How old data can inform us of future prospects"

Astronomy Seminar, *University of California, Riverside* 10 Oct 2025
"How Archival Spectroscopy Can Reveal New Discoveries and Shape Next-Gen Surveys"

Astronomy Seminar, *University of Manchester* 23 Jul 2025
"How Archival Spectroscopy Can Reveal New Discoveries and Shape Next-Gen Surveys"

Astronomy Seminar, *University of Kentucky, Lexington* 23 Oct 2024
"Finding Hidden Gems in Old Data – How Past Data can support Future Science"

Astronomy on Tap, *Hilo, Hawaii* 3 Oct 2024
"Revisiting the Past: Maximizing the Legacy & Accessibility of Maunakea Spectroscopy"

STScI Journal Club Talk, *Space Telescope Science Institute* 11 Jun 2024
"The Nature of Extreme Emission Line Galaxies: A Low-z Window to the High-z Universe"

IPAC Science Colloquium, *Caltech/IPAC* 30 Apr 2024
"Harnessing the Power of New & Archival Datasets in Preparation for *Roman* and *Euclid*"

Astrophysical Sciences & Technology Colloquium, *Rochester Institute of Technology* 7 Dec 2021
"A 13 Billion Year Old Story told by Narrowband Surveys"

Emission Lines in Galaxies: Discovery and Diagnostics, *238th AAS Meeting* Jun 2021
"Intrinsic Properties of Hα Equivalent Width Distributions from $z \sim 0.4 - 2$: Implications on Episodic Star Formation Histories"

SED Director's Seminar, *NASA Goddard Space Flight Center* 9 Nov 2018
"Properties of Star-Forming Galaxies with the Largest Narrowband Surveys"

Astrophysics Seminar, *Lancaster University* 22 Jun 2017
"Clustering Properties of [OIII] and [OII] emitters over the past 12.5 Gyrs"

Astrophysics Seminar, *Lancaster University* 4 Jul 2016
"Exploring the Young Universe with the Largest Emission Line Surveys"

Astronomy Seminar, *University of Lisbon* 13 Mar 2015
"Probing the Evolution of Hβ+[OIII] and [OII] emitters up to $z \sim 5$ with HiZELS"

Master's Student Class, *University of Lisbon* 12 Mar 2015
"Probing the Evolution of Hβ+[OIII] and [OII] emitters up to $z \sim 5$ with HiZELS"

Special Astronomy Seminar, *UC Irvine* 24 Feb 2015
"Probing the Evolution of Hβ+[OIII] and [OII] emitters with HiZELS"

Star Formation Lunch Seminar, *Center for Astrophysics, Harvard University* 8 Aug 2011
"Molecular Demographics of the Pipe Nebula: The Chemical Evolution"

Contributed / Conference Talks

The Metal-Poor Frontier, *Baltimore, MD* — 11 – 15 May 2026
"The AURORA Survey: The MZR and FMR at $z \sim 2.3$ Based Purely on Direct T_e Metallicities"

247th American Astronomical Society Meeting, *Phoenix, AZ* — 4 – 8 Jan 2026
"Mining the Extragalactic Archives to Guide the Next-Generation Survey"

Infrared Spectroscopy from Space, *Caltech/IPAC* — 6 – 8 Oct 2025
"Mining the Extragalactic Archives to Guide the Next-Generation IR Surveys"

COSMOS Team Meeting, *Marseille, FR* — 19 – 23 May 2025
"COSMOS Spectroscopic Redshift Compilation"

245th American Astronomical Society Meeting, *National Harbor, MD* — 12 – 16 Jan 2025
"The Case of EELG1002: A low-z extreme, rare gem similar to typical $z \sim 6 - 10$ galaxies"

The First Gigayear(s), *NOIRLab, Hilo, Hawaii* — 1 Oct 2024
"The case of EELG1002: A low-z extreme, rare GMOS gem similar to typical $z \sim 6 - 10$ galaxies"

STScI Annual Spring Symposium, *Baltimore, MD* — 15 – 19 Apr 2024
"Do EELGs from low to high-z make or break what we know about Star Formation and ISM conditions?"

243rd American Astronomical Society Meeting, *New Orleans, LA* — 7 – 11 Jan 2024
"Past Spectra for Future Science: A Public COSMOS Spectroscopic Archive"

Roman Science Inspired by Emerging JWST Results, *Space Telescope Science Institute* — 20 – 23 Jun 2023
"Let's Go Extreme with Roman: Observing $z \sim 0.5 - 2$ low & high EW ELGs"

COSMOS Team Meeting, *Rochester Institute of Technology* — 23 – 26 May 2023
"Past Spectra for Future Science: A Public COSMOS Spectroscopic Archive"

COSMOS Team Meeting, *IAP, Paris* — 11 – 13 Jul 2022
"Past Spectra for Future Science: A Public COSMOS Spectroscopic Archive"
Changed to virtual talk due to contracting COVID-19

Roman Science Team Community Briefing, *NASA Goddard Space Flight Center; virtual* — 18 Nov 2021
"Measurements of Hα Equivalent Width Distributions: The Second Tool in Roman Grism Survey Planning"

NASA Early Career Scientist Forum, *NASA Goddard Space Flight Center; virtual* — 10 – 13 Nov 2020
"Mapping the Redshift Evolution of Hα Equivalent Width Distributions: Implications for *NGRST* Grism Surveys"

Galaxy Formation and Evolution in the Era of *NGRST*, *Space Telescope Science Institute; virtual* — 5 – 9 Oct 2020
"Intrinsic Properties of Hα Equivalent Width Distributions"

USRA Site Visit, *NASA Goddard Space Flight Center; virtual* — 20 Aug 2020
"Evolution of Star-Forming Galaxies using the Largest Narrowband Surveys"

LAGER Team Workshop, *virtual* — 13 – 16 Jul 2020
"Physical Correlations of Hα Equivalent Width Distributions: Real or Selection Driven?"

***WFIRST* Science Jamboree**, *Flatiron Institute* — 2 Mar 2020
"Statistical Properties of $z > 0.4$ Hα, [OIII], and [OII] emitters: Implications for *WFIRST*"

235th American Astronomical Society Conference, *Honolulu, HI* — 4 – 8 Jan 2020
"A large, deep 3 deg^2 survey of Hα, [OIII], and [OII] emitters from LAGER: constraining luminosity functions"

COSMOS 2019, *Flatiron Institute* — 14 – 17 Mar 2019
"The Lyα and UV luminosity-dependent clustering of typical Lyα emitters up to $z \sim 6$"

NASA Early Career Scientist Forum, *NASA Goddard Space Flight Center* — 1 Nov 2018
"Clustering Properties of Typical Lyα Emission Line Galaxies"

231st American Astronomical Society Conference, *National Harbor, MD* — 8 – 12 Jan 2018
"Clustering Properties of Emission Line Selected Galaxies over the past 12.5 Gyrs"

Galaxy Evolution Across Time Conference, *IAP, Paris* — 12 – 16 Jun 2017
"Clustering Properties of [OIII] and [OII] emitters over the past 12.5 Gyrs"

National Astronomical Meeting, *Univ. of Nottingham* — 27 Jun – 1 Jul 2016
"The Nature of Hβ+[OIII] and [OII] emitters to $z \sim 5$ with HiZELS: stellar mass functions and the evolution of EWs"

228th American Astronomical Society Conference, *San Diego, CA* 12 – 16 Jun 2016
"The Nature of Hβ+[OIII] and [OII] emitters to $z \sim 5$ with HiZELS: stellar mass functions and the evolution of EWs"

SAO Research Symposium, *Center for Astrophysics, Harvard University* 10 Aug 2011
"Molecular Demographics of the Pipe Nebula: The Chemical Evolution"

Contributed Posters

LVS Conference, *Space Telescope Science Institute, virtual* 29 Mar – 1 Apr 2022
"Building A Public Spectroscopic Archive of the COSMOS Legacy Field"

NASA SED Poster Party, *NASA Goddard Space Flight Center* 23 Jan 2020
"The Lyα and UV luminosity-dependent clustering of typical Lyα emitters up to $z \sim 6$"

233rd American Astronomical Society Conference, *Seattle, WA* 6 – 10 Jan 2019
"The Lyα and UV luminosity-dependent clustering of typical Lyα emitters up to $z \sim 6$"

Back at the Edge of the Universe Conference, *Sintra, Portugal* 15 – 19 Mar 2015
"Evolution of the Hβ+[OIII] and [OII] Luminosity Functions and the [OII] Star-Formation History of the Universe up to $z \sim 5$"

219th American Astronomical Society Conference, *Austin, TX* 8 – 12 Jan 2012
"Herschel HerMES: Identifying Counterparts in CANDELS HST & SpUDS IRAC data"

Inaugural Center for Galaxy Evolution Workshop, *UC Irvine* 1 – 2 Mar 2011
"Spitzer Imaging of Herschel-ATLAS Gravitationally Lensed Submillimeter Sources"

217th American Astronomical Society Conference, *Seattle, WA* 9 – 13 Jan 2010
"Spitzer Imaging of Herschel-ATLAS Gravitationally Lensed Submillimeter Sources"

List of Publications

Ali Ahmad Khostovan

November 2026

Full record on NASA ADS/SciX

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
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