DANIAL LANGEROODI

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RESEARCH INTERESTS

Galaxy Evolution: feedback, the role of environment, bursty star formation, reionization Interstellar Medium: chemical enrichment, dust properties and buildup Stellar Populations: stellar initial mass function, spectral energy distribution fitting

EDUCATION

University of Copenhagen Ph.D. in Astrophysics	2021-present
Leiden Observatory M.Sc. in Astronomy and Cosmology	2018–2020
Sharif University of Technology B.Sc. in Physics	2013–2018

Awards

Leiden University Excellence Scholarship (€40,000 tuition waiver for M.Sc. studies) 2018 Bronze Medal, National Astronomy & Astrophysics Olympiad 2011

Refereed Publications

 ${f 9}$ first-author papers; ${f 4}$ second- to fifth-author papers; ${f 40}$ papers in total

h-index: 18 (all papers); 5 (first-author)

citations: 933 (all papers); 149 (first-author)

Data Products

JWST/NIRSpec

I have uniformly reduced the entire archive of JWST/NIRSpec MSA data, along with the corresponding HST, JWST/NIRCam, and JWST/MIRI imaging

$[O III]4363\lambda$ Emitters

I have compiled the largest sample of $[O\,III]4363\lambda$ emitters, consisting of 1551 galaxies observed with JWST/NIRSpec, SDSS, and other ground-based instruments

Software

Genesis

a spectral energy distribution fitting code, specifically designed to fit the JWST/NIRSpec spectra of intermediate- to high-redshift galaxies

Genesis-metallicity

non-parametric gas-phase metallicity and electron temperature estimation

AWARDED TELESCOPE TIME	
JWST (NIRSpec) JWST (MIRI) ((Co-I) 67 hours Co-I) 221 hours
Observing Experience	
Nordic Optical Telescope (5 nights)	2021-2024
Major Collaborations	
MIRIC: MIRI Clusters (PI: E. Iani) JWST/MIRI deep imaging of the lensing clusters Abell2744 and MACS041	since 2024
European MIRI GTO high-z (PIs: G. Östlin & L. Colina) JWST/MIRI deep imaging of the Hubble Ultra-Deep Field	since 2021
YSE: The Young Supernova Experiment Time-domain astrophysics with the Pan-STARRS telescopes	since 2021
TDCOSMO: Time-Delay Cosmography Cosmology with strong gravitational lenses	since 2022
STUDENT MENTORING (AS PRIMARY SUPERVISOR)	
Jacob Markus (undergrad, University of Minnesota) Kasra Hajian (Gruber-funded summer intern, ESO)	2024-present 2024-present

Jacob Markus (undergrad, University of Minnesota)	2024-present
Kasra Hajian (Gruber-funded summer intern, ESO)	2024-present
Otto Stoklund (summer student, University of Copenhagen)	2024
Ida Schøsler (undergrad, University of Copenhagen)	2023 – 2024
Thomas Morthorst (undergrad, University of Copenhagen)	2023 – 2024
Mikkel Kallesøe (undergrad, University of Copenhagen)	2023 – 2024
William Mirsal (undergrad, University of Copenhagen)	2023 – 2024
Jack Dienhart (M.Sc. student, University of Copenhagen)	2023 – 2024

TEACHING EXPERIENCE

Teaching Assistant, General Relativity and Cosmology, M.ScPh.D. level	2024 - 2025
Teaching Assistant, General Relativity and Cosmology, M.ScPh.D. level	2023 – 2024
Teaching Assistant, General Relativity and Cosmology, M.ScPh.D. level	2022-2023

JOURNAL REFEREE

 ApJ Letters, Astronomy & Astrophysics

SERVICES

Co-organizer of the DARK & DAWN DEI meetings/talks	2022-present
SOC for the D-LOCKS galaxy evolution workshop, DTU, Denmark	2024
Organizer of the DARK lunch talks	2021-present

TALKS (SINCE 2021)

I have given 21 talks, 8 of which were invited (1 invited review & 1 invited lecture).

Invited lecture, "From nearby worlds to distant galaxies" school, ESO, Germany	2025
Invited lunch talk, ESO, Garching, Germany	2025
Talk, "Evolution of Dust and Gas throughout Cosmic Time", Hiroshima, Japan	2024
Talk, "Unveiling the physics of galaxy/BH formation with JWST", Paris, France	2024
Talk, "Observing and Simulating Galaxy Evolution", Ascona, Switzerland	2024
Talk, STScI's "Stars, Gas & Dust in the Universe", Porto, Portugal	2024
Invited review, "Extragalactic Astronomy at High Resolution", Lyngby, Denmark	2024
Talk, "ELT science in light of JWST", Los Angeles, USA	2023
Talk, "The James Webb Space Telescope turns one", Sesto, Italy	2023
Talk, European Astronomical Society Annual Meeting, Kraków, Poland	2023
Talk, "Shedding new light on the first billion years", Marseille, France	2023
Talk, Annual Danish Astronomy Meeting, Fredericia, Denmark	2023
Invited lunch talk, Leiden Observatory, Leiden, The Netherlands	2023
Invited lunch talk, Kapteyn Astronomical Institute, Groningen, The Netherlands	2023
Talk, "Epoch of Galaxy Quenching", Cambridge, UK	2022
Talk, "A Comprehensive View of Galaxy Evolution", Sesto, Italy	2022
Talk, Annual Danish Astronomy Meeting, Roskilde, Denmark	2022
Invited talk, Sapienza Astrophysics Group, Rome, Italy	2022
Talk, "Gravitational Wave Physics and Astronomy", Hannover, Germany	2021
Invited talk, Eucild strong lensing working group	2021
Invited Transient Tuesday talk, University of Copenhagen, Copenhagen, Denmark	2021