Jonah Daniël Wagenveld

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JonahDW https://www3.mpifr-bonn.mpg.de/staff/wagenveld/

Education

Nov 2019 - Jun 2024 | **Ph.D. Astronomy** — Max-Planck Institut für Radioastronomie
Thesis title: *Testing large scale cosmology with MeerKAT*
Supervisors: Prof. Dr. Michael Kramer, Dr. Hans-Rainer Klöckner
Honours: *summa cum laude*

Sep 2017 - Aug 2019 | **M.Sc. Astronomy Research** — Leiden University
First project: *Bayesian methods of high redshift quasar selection in the LOFAR HETDEX field*, Supervisors: Prof. Dr. Huub Röttgering, Dr. Kenneth Duncan
Second project: *Weak lensing power spectrum inference using Bayesian Hierarchical modeling with KiDS*, Supervisor: Prof. Dr. Koen Kuijken
Honours: *cum laude*

Sep 2014 - Aug 2017 | **B.Sc. Astronomy** — Leiden University
Thesis title: *Exploratory analysis of the Sz91 transition disk*
Supervisor: Prof. Dr. Michiel Hogerheijde
Thesis work carried out together with fellow student Christiaan van Buchem

Professional experience

Sep 2024 - Present | **Postdoctoral researcher** — Max-Planck Institut für Radioastronomie

Nov 2019 - Aug 2024 | **Doctoral researcher** — Max-Planck Institut für Radioastronomie

Apr 2018 - Okt 2019 | **Custodian** — Old Observatory Leiden
Overseeing the visitors' centre at the Old Observatory in Leiden greeting guests and giving two short tours per day

Awards

Aug 2025 | **Doctoral Thesis Award** — German Astronomical Society
For best PhD thesis of the year, *Testing large scale cosmology with MeerKAT*

Teaching experience

Feb 2025 | **Fundi tutorials, workshop tutorial** — Max-Planck Institut für Radioastronomie
Lecture and hands-on session titled *Interferometry for dummies*

Mar 2023 | **Fundi tutorials, workshop tutorial** — Max-Planck Institut für Radioastronomie
Lecture and hands-on session titled *Interferometry for dummies*

SS 2020 - WS 2021 | **Tutor** — University of Bonn
Optical Astronomy lab course (Master's, English, two semesters)

International collaborations

Sep 2024 - Present	**Member**	MPIfR MeerKAT Galactic Plane Survey (MMGPS)
	Continuum imaging & verification	
Nov 2019 - Present	**Associate member**	MeerKAT Absorption Line Survey (MALS)
	Under student project: *Testing large scale cosmology with MeerKAT*	
Jan 2023 - Present	**co-Chair SWG-3**	MeerKAT Absorption Line Survey (MALS)
	co-Chair of Science Working Group (SWG)-3: Radio continuum and polarization science	

Service to the community

Sep 2024 - present	**Referee (one article)**	European Physical Journal C
Apr 2024 - present	**Referee (one article)**	Monthly Notices of the Royal Astronomical Society
February 2025	**Organiser Fundi tutorials**	Max-Planck Institut für Radioastronomie
	Organised a week of tutorials on various topics for students of the Fundamental Physics in Radio Astronomy group	
March 2023	**Co-organiser Fundi tutorials**	Max-Planck Institut für Radioastronomie
	Co-organised a week of tutorials on various topics for students of the Fundamental Physics in Radio Astronomy group	
Dec 2021 - Apr 2024	**PhD-student meetings coordinator**	Max-Planck Institut für Radioastronomie
	Organised a semi-regular meeting between the PhD students and the group director (Prof. Dr. Michael Kramer) of the Fundamental Physics in Radio Astronomy group	
Apr 2021 - Apr 2022	**Student representative**	International Max Planck Research School (IMPRS)
	MPIfR internal student representative of IMPRS	

Successful proposals and observing experience

2020	**Follow-up observations on a confirmed z=5.56 quasar**	Telescopio Nazionale Galileo (TNG)
	Programme: A41TAC_23 (Co-I), 4 hours granted.	
2019	**Spectroscopic confirmation of radio detected high-redshift quasar candidates selected using machine learning techniques**	Isaac Newton Telescope (INT)
	Programme: N17 (PI), 10 nights (6 dark/4 grey) granted.	

Skills

- Programming languages: Python, Bash, LaTeX, SQL
- Software: CASA, CARTA, Topcat, AstroPy, DS9, Singularity, Docker, IRAF
- Languages: Dutch (native), English (fluent), German (intermediate)

Conferences and Workshops

2025	**AG Tagung, Awardee talk**	Görlitz, Germany
	Testing large scale cosmology with radio catalogues	
	SKAO Science meeting, Contributed talk	Görlitz, Germany
	The cosmic number count dipole - results from SKA precursors and prospects for an SKA measurement	
2024	**Science at low frequencies (SALF) X, Contributed talk**	Shanghai, China
	Measuring the cosmic radio dipole with MeerKAT	

Radio2024, Invited talk — Erlangen, Germany
Uncovering the origin of the cosmic radio dipole

Synergies in Non-Thermal Astrophysics in Southern Africa, Contributed talk — Erlangen, Germany
Measuring the cosmic radio dipole with the MeerKAT Absorption Line Survey

SKA Pathfinder Radio Continuum Surveys (SPARCS) XII, Contributed talk — Bologna, Italy
Measuring the cosmic radio dipole with MeerKAT

MeerKAT@5, Contributed talk — Stellenbosch, South Africa
Measuring the cosmic radio dipole with MeerKAT

2023 **Science at low frequencies (SALF) IX, Contributed talk** — Amsterdam, Netherlands
Uncovering the origin of the cosmic radio dipole with multi-catalogue estimates

Kosmologietag, Contributed talk — Bielefeld, Germany
The cosmic radio dipole: Bayesian estimators on new and old radio surveys

Cosmology on Safari, Contributed talk — South Africa
The cosmic radio dipole: Bayesian estimators on new and old radio surveys

2022 **SKA Pathfinder Radio Continuum Surveys (SPARCS) XI, Contributed talk** — South Africa
MALS – Homogeneous continuum catalogues towards a measurement of the cosmic radio dipole

2021 **Radio2021, Contributed talk** — Munich, Germany
MALS - The first steps towards a kilo square degrees continuum sky

A precursor view of the SKA sky, Contributed talk — Online
MALS - The first steps towards a kilo square degrees deep radio continuum sky

2019 **First light summer school, Participant** — Sao Paolo, Brazil