

Sthabile Kolwa

Curriculum Vitae

Employment

- 2021-present** Lecturer
The University of Johannesburg
- 2020** Postdoctoral Fellow
*The University of Cape Town /
The Inter-University Institute for Data-Intensive Astronomy (IDIA)*
- 2014-2019** Postgraduate student
*The University of the Western Cape (M.Sc.)
Ludwig Maximilian University of Munich (Ph.D.)*
- 2013** Astronomy Tutor
The University of Cape Town

Education

- 2016**
2019 **Dr. rer. nat. Physics**, *The Ludwig Maximilian University of Munich (LMU), Munich, Germany*
Thesis: *The kinematic nature of baryons in the multi-phase circumgalactic media of high-redshift radio galaxies*
- 2014**
2015 **MSc Physics**, *University of the Western Cape (UWC), Cape Town, South Africa*
Thesis: *The effects of environment on radio-loud AGN activity in Stripe 82*
- 2010**
2013 **BSc Physics and Astronomy**, *The University of Cape Town (UCT), Cape Town, South Africa*
Thesis: *The Effects of Ionospheric Scintillation on the Dilution of GPS Positioning*

First-Authored Papers

- Kolwa, S.** ; De Breuck, C. ; Vernet, J. ; Wylezalek, D. ; ... Andreani, P. (2023), MNRAS, 525, 4
- Kolwa, S.** ; Vernet, J. ; De Breuck, C. ; Villar-Martín, M. ; ... Man, A (2019), A&A, 625, 102
- Kolwa, S.** ; Jarvis, M. J. ; McAlpine, K. ; Heywood, I. (2019), MNRAS, 482, 5156

Co-authored Papers

Whittam, I et al. (2023), epring arXiv:2310.17409
Wang, W. et al. (2023), eprint arXiv:2309.15144
Hale, C. L. et al. (2023), MNRAS, 520, 2668
De Breuck, C. et al. (2021), A&A, 658, L2
Wang, W. et al (2021), A&A, 654, 88
Falkendal, T et al. (2019), A&A, 621, 27
Vernet et. al. (2017), A&A, 602, 6
Jarvis, M. et al. (2016), PoS(MeerKAT2016)006

Selected Scientific Talks

- 2023 *Durham Astronomy Colloquium*, Durham University, UK (Nov)
South African Astronomical Observatory (SAAO) Colloquium (virtual) (Oct)
Galaxies Discussion Talk, Kavli Institute for Cosmology in Cambridge (KICC), UK (Oct)
Invited speaker at the *High Energy Astrophysics South Africa Conference*, (virtual) (Sept)
Space Telescope Science Institute (STScI)/Johns Hopkins University Journal Club Talk (Apr)
African Astronomical Society (AfAS) Meeting, Johannesburg, South Africa (Mar)
- 2022 *Max Planck Institute for Radio Astronomy (MPIfR) Colloquium*, Bonn, Germany (Nov)
BRICS Astronomy Working Group Seminar (virtual) (Oct)
- 2021 *University College London Astronomy Seminar* (virtual) (Oct)
The European Astronomical Society (EAS) Meeting (virtual) (June)
Southampton Astronomy Seminar (virtual) (July)
SAAO Colloquium (virtual) (May)
- 2019 *ETH Astrophysics Seminar*, Zurich, Switzerland (Nov)
OPINAS (Optical and Interpretive Astronomy) Seminar, Max Planck Institute for Extraterrestrial Physics (MPE), Garching, Germany (Nov)
Modeling Meerkats Workshop, Hazyview, Mpumalanga, South Africa (July)
Multi-messenger Astronomy with SKA precursors and pathfinders Workshop, Aveiro, Portugal (May)
Australia-ESO Conference, Sydney, Australia (Feb)
ESO Gas Matters Seminar, ESO Garching, Germany (Feb)
- 2018 *Walking the Line Meeting*, Goldwater Centre, Arizona State University, USA (Mar)
ESO AGN Club Seminar, ESO Garching, Germany (Feb)
- 2017 *What Matters Around Galaxies?* Conference, Durham University, United Kingdom (Jul)

Dawn of Galaxies Conference, Obergurgl, Austria (Jan)

Teaching & Student Supervision

- Teaching**
- *Engineering Physics* for 2nd year undergraduates
 - *Radiative Processes in Astrophysics* for Honour's (4th year) students
- Students**
- Thando Mothogoane (PhD supervisor; 2022-)

Observing Experience

- 2017** ESO Period 100 observing on the Atacama Pathfinder Experiment Telescope (APEX), San Pedro de Atacama, Chile
- 2012** Optical observing on the Radcliffe 1.9-m Telescope at the South African Astronomical Observatory (SAAO), Sutherland, South Africa

Computing Skills

Languages	Python, SQL, HTML5, Erlang
Computational tools	SciPy, NumPy, AstroPy & Pandas
Visualisation tools	Matplotlib, Seaborn, Plotly & Pillow
Development tools	Git & Docker
Documentation tools	Jupyter Notebook, L ^A T _E X & Microsoft Word

Professional Activities

- Co-chair for the *IAU General Assembly 2024* Symposium 394: "All-inclusive AGN"
- South African Salt time allocation committee (SASTAC) member (2023-)
- Academic mentor in the *Supernova Foundation* (2022-)
- Executive Committee official in the African Astronomical Society (AfAS) (2022-)
- Chair of the AfAS early-career science sub-committee (2022-)
- Organiser of monthly talks at the *ESO Wine & Cheese Seminar* series (2017-2018)
- Volunteer at the *ESO Open Panel Committee* meetings for periods 109, 100 and 101 (2017-2018)

Outreach

- Member of the *African Network for Women in Astronomy (AfNWA)* organisation (2021-)
- Organiser in the *Astronomy in Colour (AiC)* collective (2021-)
- Fundraiser for the *Astro Molo Mhlaba* project (2019-)
- Co-ordinator for astronomy outreach at Elsie's Rivier High School (2015-2016)
- Tutor for SHAWCO, UCT (2011-2014)

Selected Media & Press

- International Astronomy Union (IAU) *Women in Astronomy Working Group* Seminar (2022)
- Scientific comments featured in *WIRED* magazine (2021); Click here for a link to the article
- Session chair in the *AiC Speaker Series: Trailblazers* (2020); Click for a link to the video channel
- Public talk on radio galaxies for the *SAAO Open Night* series (2020); Click for a link to the video
- Popular science writer on *Medium* (2020-)

Achievements

- 2023 Recipient of National Research Foundation (NRF) funding for Teaching Relief
- 2016 - 2019 Awarded ESO Ph.D. Studentship funding
- 2016 Selected for the International Max Planck Research School (IMPRS), Astrophysics Ph.D. program
- 2011-2015 Recipient of NRF-SKA (National Research Foundation - Square Kilometer Array) B.Sc. and M.Sc. Scholarships

References

Prof Dr. Russ Taylor

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Prof Dr. Soebur Razzaque

Professor
Physics Department, UJ
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Dr. Carlos de Breuck

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The European Southern Observatory
Garching bei München, Germany
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Dr. Jarita Holbrook

Cultural Astronomer
The University of Edinburgh
Edinburgh, Scotland
✉ jc.holbrook@ed.ac.uk