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Sthabile Kolwa

Curriculum Vitae

Employment

2021-present Lecturer

University of Johannesburg

2020 Postdoctoral Fellow

The University of Cape Town /

The Inter-University Institute for Data-Intensive Astronomy (IDIA)

2014-2019 Postgraduate student

Ludwig Maximilian University of Munich (Ph.D.; 2016-2019)

University of the Western Cape (M.Sc.; 2014-2015)

2013 Astronomy Tutor

The University of Cape Town

Education

2016

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

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), eprint 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. (2022), 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 UWC Astronomy Seminar (virtual) (Nov)

Durham Astronomy Colloquium, Durham University, The United Kingdom (UK) (Nov)

South African Astronomical Observatory (SAAO) Colloquium (virtual) (Oct)

Invited talk at the *ESA/ENGAGE Meeting* 2023 in Madrid, Spain (Sept)

Invited talk at the *High Energy Astrophysics South Africa Conference*, (virtual) (Sept)

African Astronomical Society (AfAS) Meeting, Johannesburg, South Africa (Mar)

Magnetism and Accretion Conference 2023 (virtual) (Jan 2023)

2022 Max Planck Institute for Radio Astronomy (MPfIR) 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)

- 2018 Walking the Line Meeting, Goldwater Centre, Arizona State University, USA (Mar)
- 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 undergraduate students
 - o Radiative Processes in Astrophysics for Honour's (4th year) students

Students • Thando Mothogoane (Ph.D.; 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

Professional Activities

- o Co-chair for the IAU General Assembly 2024 Symposium 394: "All-inclusive AGN" (2023-)
- 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)
- O Volunteer at the ESO Open Panel Committee meetings for periods 109, 100 and 101 (2017-2018)

Outreach

- Coordinated activities at the Durham University Celebrate Science Day (2023)
- Delivered a public talk for the Warwick Ethnic Minorities in Physics Network (2023)
- Delivered a public talk at the winter SARAO Open Day (2023)
- Current member of the African Network for Women in Astronomy (AfNWA) organisation (2021-)
- Delivered a public talk for the Astronomical Society of South Africa (ASSA) (2022)
- Project organiser in the *Astronomy in Colour (AiC)* collective (2021-)
- Public talk for an SAAO Open Night (2020)
- Fundraised for the Astro Molo Mhlaba project (2019-)
- Coordinated activities for astronomy outreach at Elsies Rivier High School (2015-2016)
- Tutored for SHAWCO, UCT (2011-2016)

Selected Media & Press

- International Astronomy Union (IAU) Women in Astronomy Working Group Seminar; click here for a link to the video (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 here for a link to the video channel
- Public talk on radio galaxies for the SAAO Open Night series (2020); click here for a link to the video
- O Popular science writer on *Medium* (2020-)

Achievements

- 2023 Awarded research funds from the National Research Foundation (NRF)
- 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 (Square Kilometer Array) B.Sc. and M.Sc. Scholarships

References

Prof Dr. Russ Taylor

Professor
Astronomy Department, UCT
Cape Town, South Africa

☑ russ@idia.ac.za

Dr. Carlos de Breuck

Staff Astronomer
The European Southern Observatory
Garching bei München, Germany

☑ cdebreuc@eso.org

Prof Dr. Soebur Razzaque

Professor
Physics Department, UJ
Johannesburg, South Africa
☑ srazzaque@uj.ac.za

Dr. Jarita Holbrook

Cultural Astronomer
The University of Edinburgh
Ediburgh, Scotland

☑ jc.holbrook@ed.ac.uk