

Sthabile Kolwa

Curriculum Vitae

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[🌐 skolwa.github.io](https://skolwa.github.io)

[GitHub](https://github.com/skolwa)

Employment

- 2025-** Senior Lecturer
University of South Africa (UNISA)
- 2021-2024** Lecturer
University of Johannesburg
- 2020** Postdoctoral Research Fellow
*The University of Cape Town /
The Inter-University Institute for Data-Intensive Astronomy (IDIA)*
- 2014-2019** Postgraduate student
*The 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
2019

- Dr. rer. nat. (Ph.D. equivalent) in 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

- M.Sc. in 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

- B.Sc. in 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

- Pinjarkar, S. et al. (2025), MNRAS, 537, 3481
- Escott, E. et al. (2025), MNRAS, 536, 1166
- Petley, J.W. et al. (2024), MNRAS, 529, 1995
- Whittam, I. et al. (2024), MNRAS, 527, 3231

- Wang, W. et al. (2023), A&A, 680, A70
 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 Talks

Invited Talks

- 2024 *AGN Populations Across Continents and Populations*, Durham, UK (July)
 2023 *High Energy Astrophysics in South Africa (HEASA) Conference-2023 (virtual)* (Sept)
Magnetism and Accretion Conference (virtual) (Jan)

Seminars & Colloquia

- 2025 *Max Planck Astrophysics & German Centre for Astrophysics (DZA) Colloquium*, Garching, Germany (Jan)
 2024 *UKZN (University of KwaZulu Natal) Astrophysics Seminar*, South Africa (virtual) (Jul)
Kavli Institute for Particle Astrophysics and Cosmology (KIPAC) Colloquium, Stanford University, USA (Mar)
Nottingham Astronomy Colloquium, Nottingham University, UK (Jan)
 2023 *UWC Astronomy Seminar (virtual)* (Nov)
Durham Astronomy Colloquium, Durham University, UK (Nov)
South African Astronomical Observatory (SAAO) Colloquium (virtual) (Oct)
Galaxies Discussion, Kavli Institute for Cosmology, Cambridge (KICC), UK (Oct)
 2022 *Max Planck Institute for Radio Astronomy (MPIfR) Colloquium*, Bonn, Germany (Nov)
 2021 *University College London (UCL) Astronomy Seminar (virtual)* (Oct)
Southampton Astronomy Seminar (virtual) (July)
 2019 *OPINAS (Optical and Interpretive Astronomy) Seminar*, Max Planck Institute for Extraterrestrial Physics (MPE), Garching, Germany (Nov)
ETH Astrophysics Seminar, Zurich, Switzerland (Nov)

Contributed Talks at Conferences & Meetings

- 2025 SAIP-2025 Meeting, Wits University, Johannesburg, Gauteng, South Africa (Jul)
 2024 *HEASA-2024 Conference*, Hoeddespruit, Limpopo Province, South Africa (Oct)
Modeling MeerKATs 2 Workshop, Stellenbosch, Western Cape, South Africa (Mar)
Durham-Edinburgh eXtragalactic (DEX-XX) Workshop, Durham, UK (Jan)
 2023 *BRICS Astronomy Working Group Seminar (virtual)* (Oct)
African Astronomical Society (AfAS) 2023 Meeting, Johannesburg, South Africa (Mar)
 2019 *Modeling MeerKATs Workshop*, Hazyview, Mpumalanga, South Africa (July)

- 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, UK (Jul)
Dawn of Galaxies Conference, Obergurgl, Austria (Jan)
- 2016 *SKA Conference*, Cape Town, South Africa (Dec)

Teaching & Student Supervision

- Teaching**
- *Engineering Physics* for undergraduate (2nd year) students (UJ; 2021-2024)
 - *Radiative Processes in Astrophysics* for Honour's (4th year) students (UJ; 2021-2024)
 - *Extragalactic Astronomy* for undergraduate (3rd year) students (UCT; 2020)
- Students**
- Thando Mothogoane (Ph.D.; 2022-)
 - Tshepang Ramahuta (Honours; 2021)

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

- *IAU Junior Member* (2023-)
- Vice-chair for the *IAU General Assembly 2024 Symposium 394: All-inclusive AGN* (2022-2024)
- 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) (2022-2025)
- Chair of the AfAS Early-career Science Sub-committee (2022-)
- LOC Member for the *Reaching New Heights in Astronomy* Meeting (2017)
- Organiser of the *ESO Wine & Cheese Seminar* series (2017-2018)
- Session volunteer at the *ESO Observing Programmes Committee* meetings for periods 109, 100 and 101 (2017-2018)

Community Service

- Invited speaker for the *Edinburgh School of Physics and Astronomy EDI Seminar Series* (2024)
- Astronomy outreach coordinator at the Durham University *Celebrate Science Day* (2023)
- Invited speaker at the *Warwick Ethnic Minorities in Physics Network (WEMPN) Seminar* (2023)
- Invited speaker for a public talk at the Winter *SARAO Open Day* (2023)
- Invited speaker at the EAS 2023 for a special session on gender-inclusivity in Astronomy (2023)
- Invited speaker for a public talk at an *Astronomical Society of South Africa (ASSA) monthly meeting* (2022)
- Contributing speaker at the EAS 2022 for a special session on building diversity in Astronomy (2022)
- Project organiser for the *Astronomy in Colour (AiC)* collective (2021-)
- Invited speaker for a public talk at an *SAAO Open Night* (2020)
- Fundraiser for the *Astro Molo Mhlaba* project (2019-)
- Provided mentorship and advice to students attending *AstroCamp*, Portugal (2018)
- Astronomy outreach coordinator at Elsies Rivier High School, Cape Town, S.A. (2015-2016)
- Tutor of high-school students for the SHAWCO, UCT programme (2011-2016)

Selected Media & Press

- Story featured in the *Nature* magazine supplement, *Where I Work*; link to the article (2023)
- Speaker at an International Astronomy Union (IAU) *Women in Astronomy Working Group Seminar*; link to the video (2022)
- Scientific comments featured in *WIRED* magazine; link to the article (2021)
- Session Chair in the *AiC Speaker Series: Trailblazers*; link to the video channel (2020)
- Popular science article published *Mail & Guardian* (South Africa) titled *Power answer in black-holes?*; link to the article (2015)

Achievements & Accolades

- 2024 Awarded in the category of education by the Mail & Guardian for the 2024 *200 Young South Africans* List
- 2023 Awarded a National Research Foundation (NRF) grant under the BAAP (Black Academic Advancement Program)
- 2016 - 2019 Awarded ESO Ph.D. Studentship Funding
- 2011 - 2015 Awarded NRF-SKA (Square Kilometer Array) B.Sc. and M.Sc. Scholarships

References

Prof. Russ Taylor
Emeritus Professor
Astronomy Department, UWC
Cape Town, South Africa
✉ russ@idia.ac.za

Prof. Soebur Razzaque
Extraordinary Professor
Physics Department, UJ
Johannesburg, South Africa
✉ srazaque@uj.ac.za

Dr. Carlos de Breuck
Staff Astronomer
The European Southern Observatory
Garching bei München, Germany
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Prof. Leah Morabito
Professor
Centre for Extragalactic Astronomy,
Durham University, Durham, UK
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