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## EDUCATION

- Radboud University**, Nijmegen, The Netherlands 2017 – present  
*PhD Candidate in Astrophysics supervised by Prof. Dr. Heino Falcke, expected Sept 2021*
- Radboud University**, Nijmegen, The Netherlands 2015 – 2017  
*MSc in Physics and Astronomy, Specialization Particle and Astrophysics (cum laude)*
- McGill University**, Montreal, Qc, Canada 2012 – 2015  
*BSc in Physics, Minor in Economics*

## WORK AND ACADEMIC EXPERIENCE

- Member of the Event Horizon Telescope Collaboration** 2015 – present  
Observing staff for the EHT campaigns, core contributor in data processing, calibration, polarimetric analysis and imaging efforts, co-lead of one of four imaging teams.
- Smithsonian Astrophysical Observatory Predoctoral Fellow** 2018  
*Center for Astrophysics | Harvard & Smithsonian, Cambridge, MA*  
Predoctoral fellow under the supervision of Dr. Michael Johnson, focusing on processing, analysis and imaging of 86 GHz observations of the Galactic Center black hole Sagittarius A\*.
- Research Assistant: Calibration of the Sub-Millimeter Telescope (SMT)** 2015 – 2018  
*Department of Astrophysics, Radboud University, Nijmegen, the Netherlands & Arizona Radio Observatory, University of Arizona, Tucson, Az, USA*  
Working under the supervision of U. of Arizona Associate Professor Dr. Daniel P. Marrone to obtain a satisfactory calibration procedure for the SMT in a series of memos for the EHT.
- Master Thesis: VLBA imaging of 3mm SiO masers near Orion Source I** 2016 – 2017  
*Department of Astrophysics, Radboud University, Nijmegen, the Netherlands*  
Scientific publication of the first images, results and model comparisons of a VLBA dataset of the 3mm SiO masers arising near the massive proto-binary Orion Source I, under the supervision of Prof. Dr. Heino Falcke and Dr. Ciriaco Goddi.
- Bachelor Thesis: Detection of exoplanets using RV techniques** 2015  
*Department of Physics and McGill Space Institute, McGill University, Montreal, Qc, Canada*  
Participated in the Radial Velocity Challenge, under the supervision of McGill Associate Professor Dr. Andrew Cumming, using Fourier techniques to detect exoplanets in 15 HARPS datasets of both single star and binary systems.

## HONORS AND AWARDS (EXCLUDING COLLABORATION MERITS)

- Radboud University* – Christine Mohrmann Stipend for outstanding female PhD candidates 2019
- Radboud University* – Best Faculty of Science Student Thesis Prize 2018
- Fonds de recherche du Quebec* – FRQNT Doctoral research scholarship (declined) 2017
- Radboud University* – RSP Scholarship for academic excellence 2015

## SELECTED SCIENTIFIC TALKS

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Theory Lunch talk, Northwestern University	Feb 2020
EHT Special Session Speaker. 235 <sup>th</sup> AAS, Hawaii, USA	Jan 2020
Plenary Talk. EHT Collaboration Meeting 2019, Hawaii, USA	Dec 2019
Invited Talk. Galactic Center Workshop, Yokohama, Japan	Oct 2019
Astronomy Colloquium, IFAE, Barcelona, Spain	Sept 2019
Contributed Talk. 3C Extragalactic Radio Sky, Torino	Sept 2019
Invited Keynote Talk. EuroSciPy 2019, Bilbao	Sept 2019
Invited Highlight Talk. 24 <sup>th</sup> Symposium on Astroparticle Physics in the Netherlands	June 2019
Speaker. EHT panel talk at GitHub Satellite! Conference, Berlin	May 2019
Special Colloquium, MIT Haystack Observatory	May 2019
Special EHT Colloquium, University of Massachusetts Amherst	May 2019
Special EHT Colloquium, Radboud University	April 2019
Presenter. EHT Imaging Review II	Dec 2019
Plenary Talk. EHT Collaboration Meeting 2018, Nijmegen, NL	Nov 2018
Invited Talk. The Central Arcsecond: Testing GR in the Galactic Center. Munich, DE	Oct 2018
Presenter. EHT Data Issues Review IV	Oct 2018
Special Colloquium, MIT Haystack Observatory	Oct 2018
ITC Luncheon, Harvard Institute for Theory and Computation	Oct 2018
Galaxies and Cosmology Seminar, CfA   Harvard & Smithsonian	Sept 2018
Presenter. EHT Imaging Review I	Aug 2018
Presenter. EHT Data Issues Review III	May 2018
Presenter. EHT Data Issues Review II	Feb 2018
Presenter. EHT Data Issues Review I	Nov 2017

## ACADEMIC SERVICE

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Scientific Organizing Committee. 3 <sup>rd</sup> EHT Imaging Workshop (online)	May 2020
Diversity and Inclusion Task Force. EHT Collaboration	Apr 2020 – present
Project Director Search Committee. EHT Collaboration	Nov 2019 – Feb 2020
Scientific Organizing Committee. EHT collaboration meeting 2019, Hawaii, USA	Dec 2019
Scientific Organizing Committee. EHT Polarimetry Workshop, Bonn, Germany	July 2019
Scientific Organizing Committee. EHT collaboration meeting 2018, Nijmegen, NL	Nov 2018
Local Organizing Committee. 2 <sup>nd</sup> EHT Imaging Workshop, Cambridge, MA	July 2018

## RECENT OUTREACH

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Keynote Speaker. ‘2020: A Space Odyssey’ Symposium, Grinnell College, Iowa	Feb 2020
Invited Panelist. EHT panel at the Genoa Science Festival, Genoa, IT	Nov 2019
Invited Speaker. Flemish Amateur Astronomy Society, Brugges, BE	Oct 2019
Speaker. Public Lectures at the Museum Valkhof, Nijmegen, NL	April 2019
Speaker. Open Stargazing Evening, Radboud University	March 2019

**Articles submitted/published in peer-reviewed journals.**

First author articles.

- S. Issaoun**, M. D. Johnson, L. Blackburn, M. Mościbrodzka, A. Chael, H. Falcke (2019) *VLBI imaging of black holes via second moment regularization*. *A&A*, 629, A32.
- S. Issaoun**, M. D. Johnson, L. Blackburn, C. D. Brinkerink, M. Mościbrodzka, A. Chael, C. Goddi, I. Marti-Vidal, J. Wagner, S. S. Doeleman, H. Falcke, T. P. Krichbaum, + 32 others (2019) *The Size, Shape and Scattering of Sagittarius A\* at 86 GHz: First VLBI with ALMA*. *ApJ*, Volume 871, 30.
- S. Issaoun**, C. Goddi, L.D. Matthews, L.J. Greenhill, M.D. Gray, E.M.L. Humphreys, C.J. Chandler, M. Krumholz, H. Falcke (2017) *VLBA imaging of the 3mm SiO masers in the disk-wind of the high-mass protostellar system Orion Source I*. *A&A*, Volume 606, A126.

Collaboration articles.

- EHT Collaboration et al. (2019a) *First EHT M87 Results. I. The Shadow of the Supermassive Black Hole*. *ApJL*, Volume 875, L1. **Contributor**.
- EHT Collaboration et al. (2019b) *First EHT M87 Results. II. Array and Instrumentation*. *ApJL*, Volume 875, L2. **Contributor**.
- EHT Collaboration et al. (2019c) *First EHT M87 Results. III. Data Processing and Calibration*. *ApJL*, Volume 875, L3. **One of three paper coordinators and main authors**.
- EHT Collaboration et al. (2019d) *First EHT M87 Results. IV. Imaging the Central Supermassive Black Hole*. *ApJL*, Volume 875, L4. **Member of the core writing team**.
- EHT Collaboration et al. (2019e) *First EHT M87 Results. V. Physical Origin of the Asymmetric Ring*. *ApJL*, Volume 875, L5.
- EHT Collaboration et al. (2019f) *First EHT M87 Results. VI. The Shadow and Mass of the Central Black Hole*. *ApJL*, Volume 875, L6.

Other articles.

- J.Y. Kim, T. P. Krichbaum, A. E. Broderick, M. Wielgus, L. Blackburn, J. L. Gómez, M. D. Johnson, K. L. Bouman, A. Chael, K. Akiyama, S. Jorstad, A. P. Marscher, **S. Issaoun**, M. Janssen, C.-K. Chan, T. Savolainen, D. W. Pesce, F. Özel, EHT Collaboration et al. (2020) *Event Horizon Telescope imaging of the archetypal blazar 3C 279 at an extreme 20 microarcsecond resolution*. Accepted to *A&A*.
- F. Roelofs, M. Janssen, EHT Collaboration et al. (2020) SYMBA: An end-to-end VLBI synthetic data generation pipeline. Simulating Event Horizon Telescope observations of M 87. *A&A*, Volume 636, A5.
- C. Goddi, G. Crew, V. Impellizzeri, I. Marti-Vidal, L. D. Matthews, H. Messias, H. Rottmann, W. Alef, L. Blackburn, T. Bronzwaer, C.-K. Chan, J. Davelaar, R. Deane, J. Dexter, S. Doeleman, H. Falcke, V. L. Fish, R. Fraga-Encinas, C. M. Fromm, R. Herrero-Illana, **S. Issaoun**, D. James, M. Janssen, M. Kramer, T. P. Krichbaum, M. De Laurentis, E. Liuzzo, Y. Mizuno, M. Moscibrodzka, I. Natarajan, O. Porth, L. Rezzolla, K. Rygl, F. Roelofs, E. Ros, A. L. Roy, L. Shao, H. Jan van Langevelde, I. van Bemmelen, R. Tilanus, P. Torne, M. Wielgus, Z. Younsi, J. A. Zensus (on behalf of the EHT collaboration) (2019) *First M87 Event Horizon Telescope Results and the Role of ALMA*. *The Messenger*, vol. 177, p. 25-35.

- L. Blackburn, C.-K. Chan, G. B. Crew, V. L. Fish, **S. Issaoun**, M. D. Johnson, M. Wielgus, K. Akiyama, J. Barrett, K. L. Bouman, R. Cappallo, A. A. Chael, M. Janssen, C. J. Lonsdale, S. S. Doeleman (2019) *EHT-HOPS pipeline for millimeter VLBI data reduction*. *ApJ*, Volume 882, 23.
- O. Porth, EHT Collaboration et al. (2019) *The Event Horizon General Relativistic Magnetohydrodynamic Code Comparison Project*. *ApJS*, Volume 243, Issue 2, 26.
- C. D. Brinkerink, C. Müller, H. D. Falcke, **S. Issaoun**, K. Akiyama, G. C. Bower, T. P. Krichbaum, A. T. Deller, E. Castillo, S. S. Doeleman, R. Fraga-Encinas, C. Goddi, A. Hernández-Gómez, D. H. Hughes, M. Kramer, J. León-Tavares, L. Loinard, A. Montaña, M. Mościbrodzka, G. N. Ortiz-León, D. Sanchez-Arguelles, R. P. J. Tilanus, G. W. Wilson, A. Zensus (2019) *Micro-arcsecond structure of Sagittarius A\* revealed by high-sensitivity 86 GHz VLBI observations*. *A&A*, Volume 621, A119.
- C. Goddi, H. Falcke, M. Kramer, L. Rezzolla, C. Brinkerink, T. Bronzwaer, R. Deane, M. De Laurentis, G. Desvignes, J. R. J. Davelaar, F. Eisenhauer, R. Eatough, R. Fraga-Encinas, C. M. Fromm, S. Gillessen, A. Grenzebach, **S. Issaoun**, M. Janßen, R. Konoplya, T. P. Krichbaum, R. Laing, K. Liu, R.-S. Lu, Y. Mizuno, M. Moscibrodzka, C. Müller, H. Olivares, O. Porth, O. Pfuhl, +10 others (2017) *BlackHoleCam: fundamental physics of the Galactic center*. *IJMPD*, Volume 26, Issue 2.

### Non-peer-reviewed contributions.

- S. Steel, M. Wielgus, L. Blackburn, **S. Issaoun**, M. D. Johnson (2019) *Global calibration of instrumental polarimetric phase gains*. Memo CE-2019-03 for the EHT project.
- M. Wielgus, L. Blackburn, **S. Issaoun**, M. Janssen, M. D. Johnson, J.-Y. Koay (2019) *EHT data set validation and characterization of errors*. Memo CE-2019-02 for the EHT project.
- M. Janssen, L. Blackburn, **S. Issaoun**, T. P. Krichbaum, M. Wielgus (2019) *Flux Density Calibration of the EHT Array*. Memo CE-2019-01 for the EHT project.
- S. Issaoun**, H. Falcke, P. Friberg, M. Janssen, R. Tilanus, J. Wouterloot (2018) *James Clerk Maxwell Telescope Calibration Memo: Time dependence of the aperture efficiency and DPFU*. Memo CE-2018-01 for the EHT project.
- S. Issaoun**, T.W. Folkers, D.P. Marrone, J. Kim, L. Blackburn, H. Falcke (2017) *Sub-Millimeter Telescope Calibration Memo 3: A comprehensive look at the absolute amplitude calibration procedure*. Memo CE-2017-03 for the EHT project.
- S. Issaoun**, T.W. Folkers, L. Blackburn, D.P. Marrone, T. Krichbaum, M. Janssen, I. Marti-Vidal, H. Falcke (2017) *A conceptual overview of single-dish absolute amplitude calibration*. Memo CE-2017-02 for amplitude calibration of EHT observations.
- S. Issaoun**, T.W. Folkers, H. Falcke (2016) *Sub-Millimeter Telescope Calibration Memo 2: Using 1.3 mm Single-Dish Continuum Observations of April 2016*. Memo CE-2017-01 for the EHT.
- S. Issaoun**, H. Falcke (2016) *Sub-Millimeter Telescope Calibration Memo 1: Using 1.3 mm Single-Dish Continuum Observations of March 2015*. Memo CE-2016-01 for the EHT project.

*References available upon request.*