

Curriculum Vitae – Dr. Franz Kirsten

Personal Information

Name	Dr. Franz Kirsten
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Academic Record

Since Sept 2017	Postdoctoral Researcher , Chalmers University of Technology, Gothenburg, Sweden Implementation and coordination of a VLBI campaign to localise repeating CHIME FRBs with an ad-hoc network of EVN dishes Coordinator of e-MERLIN legacy project ePI measuring parallaxes and proper motions of 100 pulsars (PI Vlemmings)
Oct 2014 – Sept 2017	Research Associate , Curtin Institute of Radio Astronomy, Perth, Australia. Development of analysis tools for VLBI observations of scintillating pulsars Commissioning of phased-array mode of MWA
Oct 2011 – Oct 2014	PhD student in Astrophysics , University of Bonn, Max Planck Institut für Radioastronomie, Germany. Astrometric observations of pulsars with global VLBI, Testing of phased-array mode for SFXC with JIVE
Oct 2009 – Sept 2011	Master of Science in Astrophysics , University of Bonn, Germany

Publications

12 refereed papers in various journals, 4 of which as first author; Full list on ADS.
h-index: 8

Refereed papers

12. “Periodic activity from a fast radio burst source”
Chime/Frb Collaboration; [71 more authors]; **Kirsten, F.**
2020, Nature, 582, 351
61 citations
11. “A repeating fast radio burst source localized to a nearby spiral galaxy”
Marcote, B.; Nimmo, K.; Hessels, J. W. T.; [50 more authors]; **Kirsten, F.**
2020, Nature, 577, 190
75 citations

10. “MWA tied-array processing I: Calibration and beamformation”
Ord, S. M.; Tremblay, S. E.; McSweeney, S. J.; Bhat, N. D. R.; Sobey, C.; Mitchell, D.A.; Hancock, P. J.; **Kirsten, F.**
2019, PASA, 36, 30
6 citations
9. “Probing Pulsar Scattering between 120 and 280 MHz with the MWA”
Kirsten, F.; Bhat, N. D. R.; Meyers, B. W.; Macquart, J. -P.; Tremblay, S. E.; Ord, S. M
2019, ApJ, 874, 179
6 citations
8. “Observations of Low-frequency Radio Emission from Millisecond Pulsars and Multipath Propagation in the Interstellar Medium”
Bhat, N.D.R.; Tremblay, S.E.; **Kirsten, F.**; Meyers, B.W.; Sokolowski, M.; van Straten, W.; McSweeney, S.J.; Ord, S.M.; Shannon, R.M.; Beardsley, A.; Crosse, B.; Emrich, D.; Franzen, T.M.O.; Horsley, L.; Johnston-Hollitt, M.; Kaplan, D.L.; Kenney, D.; Morales, M.F.; Pallot, D.; Steele, K.; Tingay, S.J.; Trott, C.M.; Walker, M.; Wayth, R.B.; Williams, A.; Wu, C.
2018, ApJS, 238, 1
10 citations
7. “Spectral Flattening at Low Frequencies in Crab Giant Pulses”
Meyers, B. W.; Tremblay, S. E.; Bhat, N. D. R.; Shannon, R. M.; **Kirsten, F.**; Sokolowski, M.; Tingay, S. J.; Oronsaye, S. I.; Ord, S. M.
2017, ApJ, 851, 20
19 citations
6. “The First Low-mass Black Hole X-Ray Binary Identified in Quiescence Outside of a Globular Cluster”
Tetarenko, B. E.; Bahramian, A.; Arnason, R. M.; Miller-Jones, J. C. A.; Repetto, S.; Heinke, C. O.; Maccarone, T. J.; Chomiuk, L.; Sivakoff, G. R.; Strader, J.; **Kirsten, F.**; Vlemmings, W.H.T.
2016, ApJ, 825, 10
37 citations
5. “Revisiting the birth locations of pulsars B1929+10, B2020+28, and B2021+51”
Kirsten, F.; Vlemmings, W.H.T.; Campbell R. M.; Kramer M.; Chatterjee, S
2015, A&A, 577, 111
19 citations
4. “Precision astrometry of pulsars and other compact radio sources in the globular cluster M15”
Kirsten, F.; Vlemmings, W.H.T.; Freire, P.; Kramer, M.; Rottmann, H.; Campbell, R.M.
2014, A&A, 565, 43
7 citations
3. “Variability in Ultra-luminous X-ray Sources”
Webb, Natalie; Cseh, David; **Kirsten, F.**
2014, PASA, 31, 9
7 citations

2. “No evidence for a central IMBH in M15”
Kirsten, F. and Vlemmings, W. H. T.
 2012, A&A, 542, A44
 16 citations

1. “Clustering properties of BzK-selected galaxies in GOODS-N: environmental quenching and triggering of star formation at $z \sim 2$ ”
 Lin, L.; Dickinson, M.; Jian, H.-Y.; Merson, A. I.; Baugh, C. M.; Scott, D.; Foucaud, S.; Wang, W.-H.; Yan, C.-H.; Yan, H.-J.; Cheng, Y.-W.; Guo, Y.; Helly, J.; **Kirsten, F.**; Koo, D. C.; Lagos, C. d. P.; Meger, N.; Pope, A.; Simard, L.; Grogin, N. A.; Messias, H.; Wang, S.-Y.
 2012, ApJ, 756, 71L
 61 citations

Selected Talks

Total of 30 talks at international conferences, workshops and colloquia
 3 talks as invited speaker

“Pulsar scintillometry on the Vela pulsar with the LBA”
 EVN Symposium, Granada, Spain, 8–11 Oct 2018

“Low Frequency VLBI: Fringes between the MWA and the GMRT”
 The broad impact of Low Frequency Observing, 20 June 2017, Bologna, Italy

“First steps towards VLBI with the SKA – fringes between the MWA and the GMRT”
 Science for the SKA Generation, 8 November 2016, Goa, India

“Pulsar astrometry & scintillometry with VLBI and the MWA”
 Invited speaker at Thai VLBI Network meeting, 6 September 2016, Krabi, Thailand

“Pulsar studies at the lowest frequencies: The Murchison Widefield Array and Scintillometry”
 Invited colloquium, 15 September 2016, Onsala, Sweden

“Pulsar scattering across the MWA band”
 MWA Project Meeting, 22 June 2016, Perth, Australia

“Calibration aspects of pulsar astrometry with VLBI”
 Joint Australian and Japanese SKA Astrometry Schools, 16 June 2016, Hobart, Australia

“Tracing pulsar trajectories back in time”
 Annual Scientific Meeting of the ASA, 7 July 2015, Fremantle, Australia

“Pulsar astrometry with VLBI: from classical to extreme”
 Invited colloquium talk at the Centre for Astrophysics and Supercomputing, Swinburne University, 04 June 2015, Melbourne, Australia

“From Astrometry to Scintillometry”
 Journal Club talk at the Curtin Institute of Radio Astronomy, 09 February 2015, Perth, Australia

“High sensitivity observations of the core region of M15 - Searching for the IMBH”
Locating Astrophysical Transients, 16 May 2013, Leiden, The Netherlands

“Pulsars in M15: Results of a proper motion measurement campaign”
Latest results from the neutron-star laboratory, 07 May 2013, Amsterdam, The Netherlands

“VLBI mapping of M15 - A pulsar proper motion analysis”
Young European Radio Astronomers Conference at the University of Manchester/Jodrell Bank Observatory, 18-20 July 2011, Manchester, England

IT Skills

Familiar with Linux and Windows workstations
Familiar with HPC computing environments (PBS, SLURM)
Expert knowledge of AIPS, Python, ParselTongue, bash, Latex
Expert knowledge of software correlators SFXC and DiFX
Good knowledge of CASA
Basic knowledge of C, C++, IDL, Perl, HTML, SQL, Machine learning

Language Skills

Native command of German
Near native command of English
Near native command of French
Good command of Swedish
Good command of Mandarin
Fair command of Spanish

Public Outreach Activities

Since June 2019	One of the main organisers of Astronomy on Tap Gothenburg Bi-monthly public talks in a local pub in Gothenburg given by visiting external as well as local astronomers
2-3 times a year	Public talks on Astronomy related subjects to students, Astronomy Clubs, Science-related public events
Occasionally	Answering journalists' questions about recent publications Author of 1 public article about Fast Radio Bursts in Swedish popular science journal Pöplär Astronomi