

# Curriculum Vitae – Dr. Franz Kirsten

## Personal Information

---

Name	Dr. Franz Kirsten
E-Mail	kirsten@astron.nl
Web	www.franzkirsten.de
ORCID-ID	0000-0001-6664-8668

## Academic Record

---

Since Aug 2021	<b>Postdoctoral Researcher</b> , ASTRON, The Netherlands Organising, coordinating, running, and analysing observations of repeating fast radio bursts, both in single dish mode as well as with an ad-hoc VLBI array
Sept 2017 – July 2021	<b>Postdoctoral Researcher</b> , 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	<b>Research Associate</b> , 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	<b>PhD student in Astrophysics</b> , 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	<b>Master of Science in Astrophysics</b> , 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 Glob-  
ular 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 P populär Astronomi

## References

---

Prof. Wouter Vlemmings  
Chalmers University of Technology  
wouter.vlemmings@chalmers.se  
+46 31 772 55 09

Prof. Ue-Li Pen  
Canadian Institute for Theoretical Astrophysics, University of Toronto  
pen@cita.utoronto.ca  
+1 416 978 6477

Dr. Ramesh Bhat  
Curtin Institute of Radio Astronomy  
Ramesh.Bhat@curtin.edu.au  
+61 8 9266 9176