

The Big Impact of a Big Dish: Science with the Effelsberg 100-m telescope

Workshop at the Max-Planck-Institut für Radioastronomie, Bonn

Tuesday, 20.2.2018, 11:00 - Wednesday, 21.2.2018, 17:30

Schedule:

Tuesday, Feb 20

10:00 - 11:00 Registration, Coffee, Discussion
11:00 - 11:10 Welcome (M. Kramer, M. Kadler)

Session „Spectroscopy with the 100-m Telescope“, Chair: Andrei Lobanov

11:10 - 11:40 Andrea Tarchi: Extragalactic maser science with large radio telescopes ([invited](#))
11:40 - 11:55 L. Viktor Toth: Ammonia surveys of the Galactic cold interstellar medium
11:55 - 12:10 Silvia Leurini: The ATLASGAL catalogue of class I methanol masers
12:10 - 12:25 Busaba Kramer: Variability of Water Masers in W49N: Results from the Effelsberg Long-term monitoring programme (2014-2017)
12:25 - 12:40 Liu Xuchuan: Investigation of molecular outflow chemistry with carbon chain molecules

12:40 - 14:00 Lunch Break (MPIfR Entrance Hall)

14:00 - 14:15 Pedro Salas: Radio recombination lines: the synergy between a big dish and dipoles
14:15 - 14:45 Jürgen Kerp: “How to maintain the star formation of the Milky Way Galaxy?” - On the value of single dish HI full-sky surveys ([invited](#))
14:45 - 15:15 Jörn Wilms: X-rays and the Effelsberg telescope ([invited](#))

15:15 - 15:45 Coffee Break

Session „Effelsberg in VLBI networks“, Chair: Matthias Kadler

15:45 - 16:15 Eduardo Ros: Very long baseline interferometry with Effelsberg ([invited](#))
16:15 - 16:30 Sascha Trippe: The Inner Jet Structure of 3C84 from GMVA Mapping
16:30 - 16:45 Dhanya G. Nair: A Global mm-VLBI Array Survey of Compact Extragalactic Radio Sources at 86 GHz
16:45 - 17:15 Gabriele Bruni: From single-dish to space-VLBI: the pivotal role of Effelsberg in AGN studies ([invited](#))

17:15 - 18:00 Scientific discussion

18:00 - 19:00 Workshop dinner (buffet, MPIfR entrance hall)

19:00 - 20:00 Poster session, Scientific discussion

20:00 - 20:45 Movie presentation by L. Viktor Toth: *Pulses and Waves*



This workshop has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730562 [RadioNet].



Wednesday, Feb 21

Session “Technical activities / Future developments”, Chair: Alex Kraus

08:30 - 09:00 Coffee, Discussion

- 09:00 - 09:30 Gundolf Wieching New Receivers, Phased-Array-Feed, Spectropolarimeter: Technical developments for the 100-m telescope ([invited](#))
- 09:30 - 09:45 Benjamin Winkel: Broadband calibration for single-dish telescopes
- 09:45 - 10:00 Ioannis Myserlis: High precision polarimetry and sources with stable linear and circular polarization in the GHz regime
- 10:00 - 10:15 Tomas Cassanelli: Out-of-focus holography at the Effelsberg telescope

10:15 - 10:45 Coffee Break, Conference Picture

Session „Pulsar Observations at Effelsberg“, Chair: Olaf Wucknitz

- 10:45 - 11:15 David Champion: Pulsar Projects at the Effelsberg Telescope ([invited](#))
- 11:15 - 11:30 James McKee: Pulsar Science with the Large European Array for Pulsars
- 11:30 - 12:00 Laura Spitler: Fast Radio Burst Science with Effelsberg ([invited](#))
- 12:00 - 12:30 Caterina Tiburzi: Pulsar observations with German LOFAR stations ([invited](#))

12:30 - 13:30 Lunch Break (MPIfR Entrance Hall)

Session „Continuum observations with the 100-m Telescope“, Chair: Thomas Krichbaum

- 13:30 - 14:00 Marita Krause: Extragalactic Radio Continuum Observations with the Effelsberg 100-m telescope: Total Intensity and Linear Polarization ([invited](#))
- 14:00 - 14:15 Maja Kierdorf: Polarized emission of cluster merger shock fronts
- 14:15 - 14:30 Roland Kothes: Radio Continuum Studies of Supernova Remnants and Pulsar Wind Nebulae with the 100-m telescope
- 14:30 - 14:45 Blazej Nikiel-Wroczyński: Colliding Worlds Science with Effelsberg
- 14:45 - 15:00 Marisa Brienza: Single-dish observations for the study of the AGN duty cycle

15:00 - 15:30 Coffee Break

- 15:30 - 15:45 Emmanouil Angelakis: F-Gamma: Multi-frequency radio monitoring of Fermi blazars
- 15:45 - 16:00 Ulrich Klein: Radio synchrotron spectra of star-forming galaxies
- 16:00 - 16:15 Frederic Jaron: Detection of radio quasi-periodic oscillations in the gamma-ray-load X-ray binary LSI+61°303
- 16:15 - 16:30 Elly Berkhuisen, Rainer Beck: Forty years of M31 observations with the Effelsberg Telescope

16:30 - 16:50 Workshop Synopsis (A. Kraus)

16:50 - 17:00 Concluding remarks (M. Kramer)

Poster:

- Pawel Wolak: Discovery of Water Maser Superbursts with Effelsberg and Torun Radio Telescopes
- Charitharth Vyas: Fueling the Milky Way Galaxy: on the formation of high altitude molecular gas
- Michal Durjasz: Variability of 22 GHz water and 6.7 GHz methanol masers in G111.256-0.770
- Mateusz Olech: Multifrequency monitoring of periodic maser sources
- Diego Tuccillo: Multi-band studies on High-redshift BAL quasars



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