

2019 - Refereed publications with the INAF-IRA radio telescopes

In the following list, refereed publications involving the Medicina and Noto 32-m radio telescopes have been divided in three categories according to the observing technique/telescope network: VLBI publications, Single-Dish publications and International VLBI Service for Geodesy and Astrometry (IVS) publications.

VLBI

- 1) Alonso-Herrero, A., García-Burillo, S., Pereira-Santaella, M., et al. 2019, A&A 628, A65. "Nuclear molecular outflow in the Seyfert galaxy NGC 3227"
- 2) Atri, P., Miller-Jones, J. C. A., Bahramian, A., et al. 2019, MNRAS 489, 3116. "Potential kick velocity distribution of black hole X-ray binaries and implications for natal kick"
- 3) Bobylev, V. V. 2019, Astronomy Letters 45, 10. "Parameters of the Link between the Optical and Radio Frames from Gaia DR2 Data and VLBI Measurements"
- 4) Cao, H-M., Frey, S., Gabányi, K. É., et al. 2019, MNRAS 482, 34. "The loud and the quiet: searching for radio counterparts of two radio-weak BL Lac candidates with VLBI"
- 5) Castangia, P., Surcis, G., Tarchi, A., et al. 2019, A&A 629, A25. "Water masers in Compton-thick AGN. II. The high detection rate and EVN observations of IRAS 15480-0344"
- 6) Gabányi, K. É., Frey, S., Satyapal, S., et al. 2019, A&A 630, L5. "Very long baseline interferometry observation of the triple AGN candidate J0849+1114"
- 7) Ghirlanda, G., Salafia, O. S., Paragi, Z., et al. 2019, Science 363, 968. "Compact radio emission indicates a structured jet was produced by a binary neutron star merger"
- 8) Hartley, P., Jackson, N., Sluse, D., et al. 2019, MNRAS 485, 3009. "Strong lensing reveals jets in a sub-microJy radio-quiet quasar"
- 9) Hessels, J. W. T., Spitler, L. G., Seymour, A. D., et al. 2019, ApJ 876, 23. "FRB 121102 Bursts Show Complex Time-Frequency Structure".
- 10) Li, S.-L. 2019, MNRAS 490, 3793. "A nearby luminous AGN sample optically selected from Hubble Space Telescope"
- 11) Li, Z., Wu, Z., Chen, Y., et al. 2019, Chinese Astronomy and Astrophysics 43, 519. "Radio Properties of BL Lac Object S5 2007+777"
- 12) Makarov, V. V., Berghea, C. T., Frouard, J., et al. 2019, ApJ 873, 132. "The precious set of radio-optical reference frame objects in the light of Gaia DR2 data"
- 13) Marcote, B., Maan, Y., Paragi, Z., et al. 2019, A&A 627, L2. "Probing the origin of the off-pulse emission from the pulsars B0525+21 and B2045-16"

- 14)** Marcote, B., Nimmo, K., Salafia, O. S., et al. 2019, *ApJL* 876, L14. “Resolving the Decades-long Transient FIRST J141918.9+394036: An Orphan Long Gamma-Ray Burst or a Young Magnetar Nebula?”
- 15)** Motta, S. E. & Fender, R. P. 2019, *MNRAS* 483, 3686. “A connection between accretion states and the formation of ultrarelativistic outflows in a neutron star X-ray binary”
- 16)** Murthy, S., Morganti, R., Oosterloo, T., et al. 2019, *A&A* 629, A58. “Feedback from low-luminosity radio galaxies: B2 0258+35”
- 17)** Olech, M., Szymczak, M., Wolak, P., et al. 2019, *MNRAS* 486, 1236. “6.7 GHz variability characteristics of new periodic methanol maser sources”
- 18)** Paice, J. A., Gandhi, P., Charles, P. A., et al. 2019, *MNRAS* 488, 512. “Puzzling blue dips in the black hole candidate Swift J1357.2 - 0933, from ULTRACAM, SALT, ATCA, Swift, and NuSTAR”
- 19)** Panessa, F., Baldi, R. D., Laor, A., et al. 2019, *Nature Astronomy* 3, 387. “The origin of radio emission from radio-quiet active galactic nuclei”
- 20)** Perger, K., Frey, S., & Gabányi, K. É. 2019, *ApJ* 873, 61. “Is There a Blazar Nested in the Core of the Radio Galaxy 3C 411?”
- 21)** Petroff, E., Hessels, J. W. T., & Lorimer, D. R. 2019, *The Astronomy and Astrophysics Review* 27, 4. “Fast radio bursts”
- 22)** Petrov, L., Kovalev, Y. Y., & Plavin, A. V. 2019, *MNRAS* 482, 3023. “A quantitative analysis of systematic differences in the positions and proper motions of Gaia DR2 with respect to VLBI”
- 23)** Plavin, A. V., Kovalev, Y. Y., & Petrov, L. Y. 2019, *ApJ* 871, 143. “Dissecting the AGN Disk-Jet System with Joint VLBI-Gaia Analysis”
- 24)** Plavin, A. V., Kovalev, Y. Y., Pushkarev, A. B., et al. 2019, *MNRAS* 485, 1822. “Significant core shift variability in parsec-scale jets of active galactic nuclei”
- 25)** Radcliffe, J. F., Beswick, R. J., Thomson, A. P., et al. 2019, *MNRAS* 490, 4024. “An insight into the extragalactic transient and variable microJy radio sky across multiple decades”
Note. From EVN project codes.
- 26)** Reid, M. J., Menten, K. M., Brunthaler, A., et al. 2019, *ApJ* 885, 131. “Trigonometric Parallaxes of High-mass Star-forming Regions: Our View of the Milky Way”
- 27)** Spingola, C., McKean, J. P., Massari, D., et al. 2019, *A&A* 630, A108. “Proper motion in lensed radio jets at redshift 3: A possible dual super-massive black hole system in the early Universe”
- 28)** Surcis, G., Vlemmings, W. H. T., van Langevelde, H. J., et al. 2019, *A&A* 623, A130. “EVN observations of 6.7 GHz methanol maser polarization in massive star-forming regions. IV. Magnetic field strength limits and structure for seven additional sources”

- 29) Towner, A. P. M., Brogan, C. L., Hunter, T. R., et al. 2019, ApJ 875, 135. "SOFIA FORCAST Photometry of 12 Extended Green Objects in the Milky Way"
- 30) Varenus, E., Conway, J. E., Batejat, F., et al. 2019, A&A 623, A173. "The population of SNe/SNRs in the starburst galaxy Arp 220. A self-consistent analysis of 20 years of VLBI monitoring"
- 31) Vega-García, L., Perucho, M., & Lobanov, A. P. 2019, A&A 627, A79. "Derivation of the physical parameters of the jet in S5 0836+710 from stability analysis"
- 32) Xu, S., Zhang, B., Reid, M. J., et al. 2019, ApJ 875, 114. "Comparison of Gaia DR2 Parallaxes of Stars with VLBI Astrometry"
- 33) Yang, J., An, T., Zheng, F., et al. 2019, MNRAS 482, 1701. "A radio structure resolved at the deca-parsec scale in the radio-quiet quasar PDS 456 with an extremely powerful X-ray outflow"
- 34) Zhao, W., Hong, X.-Y., An, T., et al. 2019, RAA 19, 179. "The jet of FSRQ PKS 1229-02 and its misidentification as a γ -ray AGN"
- 35) Zhen-xu, L., Zhong-zu, W., Yong-jun, C., et al. 2019, Chinese A&A 43, 519. "Radio Properties of BL Lac Object S5 2007+777"
- 36) Zovaro, H. R. M., Nesvadba, N. P. H., Sharp, R., et al. 2019, MNRAS 489, 4944. "Searching for signs of jet-driven negative feedback in the nearby radio galaxy UGC 05771"

Single-Dish

- 1) Brand J., Wouterloot J.G.A., Codella C., et al. 2019, A&A 628, A98. "A multi-molecular line study of the star-forming globule CB88-230"
- 2) Pellizzoni, A., Righini, S., Murtas, G., et al. 2019, Il Nuovo Cimento 42, 9. "Imaging of the solar atmosphere in the centimetre-millimetre band through single-dish observations"
- 3) Raiteri, C. M., Villata, M., Carnerero, M. I., et al. 2019, MNRAS 489, 1837. "The beamed jet and quasar core of the distant blazar 4C 71.07"
- 4) Urso, R. G., Palumbo, M. E., Ceccarelli, C., et al. 2019, A&A 628, A72. "C2O and C3O in low-mass star-forming regions"
- 5) Vercellone, S., Romano, P., Piano, G., et al. 2019, A&A 621, A82. "AGILE, Fermi, Swift, and GASP-WEBT multi-wavelength observations of the high-redshift blazar 4C +71.07 in outburst"
- 6) Volvach L. N., Volvach A.E., Larionov M.G., et al. 2019, A&A 628, A89. "Flaring water masers associated with W49N"
- 7) Volvach L. N., Volvach A. E., Larionov M. G., et al. 2019, Astron. Rep. 63, 652. "An Unusually Powerful Water-Maser Flare in the Galactic Source W49N"

8) Volvach L. N., Volvach A. E., Larionov M. G., et al. 2019, *Astronomy Letters* 45, 321. "A water-vapor maser flare in a high-velocity line toward W49N"

IVS

1) Bachmann S. & Thaller D. 2019, In: *International Symposium on Advancing Geodesy in a Changing World. International Association of Geodesy Symposia* 149, 11. Freymueller J., Sánchez L. Eds, Springer. "Impact of Different ITRS Realizations on VLBI Combined EOP and Scale"

2) Böhm, S., Schartner, M., Gebauer, A., et al. 2019, *Adv. Geosci.* 50, 9. "Earth rotation variations observed by VLBI and the Wettzell 'G' ring laser during the CONT17 campaign"

3) Glaser, S., König, R., Neumayer, K.H., et al. 2019, *J. Geod.* 93, 655. "On the impact of local ties on the datum realization of global terrestrial reference frames"

4) Klopotek, G., Hobiger, T., Haas, R., et al. 2019, *Earth, Planets and Space* 71, 23. "Position determination of the Chang'e 3 lander with geodetic VLBI"

5) MacMillan, D. S., Fey, A., Gipson, J. M., et al. 2019, *A&A* 639, 93. "Galactocentric acceleration in VLBI analysis. Findings of IVS WG8"

6) Männel, B., Dobslaw, H., Dill, R., et al. 2019, *J. Geod.* 93, 2003. "Correcting surface loading at the observation level: impact on global GNSS and VLBI station networks"

7) Nilsson, T., Balidakis, K., Heinkelmann, R., et al. 2019, *Geophysica* 54, 19. "Earth orientation parameters from the CONT17 campaign"

8) Panafidina, N., Hugentobler, U., Krásná, H., et al. 2019, *Advances in Space Research* 63, 51. "Mechanism of error propagation from the subdaily Universal Time model into the celestial pole offsets estimated by VLBI"

9) Parker, A. L., McCallum, L., Featherstone, W. E., et al. 2019, *Geophysical Research Letters* 46, 11841. "The Potential for Unifying Global-Scale Satellite Measurements of Ground Displacements Using Radio Telescopes"

10) Xu, M. H., Anderson, J. M., Heinkelmann, R., et al. 2019, *ApJ Suppl.* 242, 5. "Structure Effects for 3417 Celestial Reference Frame Radio Sources"