

Publications 2023 - INAF-IRA radio telescopes

A small (highly incomplete) number of Proceedings and ATs found in ADS is included.
Some papers based on data from previous publications are also listed.

Summary 2023:

6 single-dish publications
20 astronomical VLBI publications
5 Northern Cross publications
3 geodetic VLBI publications

Single Dish

1) Multimessenger Characterization of Markarian 501 during Historically Low X-Ray and γ -Ray Activity

H. Abe, et al., 2023

The Astrophysical Journal Supplement Series, Volume 266, Issue 2, id.37, 43 pp.

<https://iopscience.iop.org/article/10.3847/1538-4365/acc181>

Medicina

2) A sign in space: An interdisciplinary exploration of the potential reception of an extraterrestrial signal

D. de Pauliset al., 2023

Acta Astronautica, Volume 212, p. 436-440.

<https://www.sciencedirect.com/science/article/abs/pii/S0094576523004344?via%3Dihub>

3) A bright radio flare observed in GRS 1915+105 with the Medicina and RATAN radio telescopes with no X-ray counterpart in the INTEGRAL energy range

ATel #16008; E. Egron et al., 2023

The Astronomer's Telegram, No. 16008

<https://www.astronomersteletgram.org/?read=16008>

Medicina

4) Far-infrared line emission from the outer Galaxy cluster Gy 3–7 with SOFIA/FIFI-LS: Physical conditions and UV fields

N. Lê et al., 2023

Astronomy & Astrophysics, Volume 674, id.A64, 25 pp.

https://www.aanda.org/articles/aa/full_html/2023/06/aa46141-23/aa46141-23.html

Medicina

5) Toward a European Facility for Ground-Based Radar Observations of Near-Earth Objects
Pupillo, G. et al., 2023

Remote Sensing, Volume 16, Issue 1, id.38

<https://www.mdpi.com/2072-4292/16/1/38>

Medicina, Noto, and Sardinia Radio Telescope (SRT)

6) Testing the potential of the Italian radio telescope for European Radar observations of NEOs

Pupillo, G. et al., 2023

2nd NEO and Debris Detection Conference, held in Darmstadt, Germany, from 24-26 January, 2023. Online at <https://conference.sdo.esoc.esa.int/proceedings/packages>, id.41

VLBI

Per ogni entry e' indicato quali telescopi sono coinvolti.

1) Milliarsecond structure and variability of methanol maser emission in three high-mass protostars *Free*

A Aberfelds et al., 2023

Monthly Notices of the Royal Astronomical Society, Volume 524, Issue 1, pp.599-618

<https://academic.oup.com/mnras/article/524/1/599/7202332?login=false>

Medicina, SRT

2) The OH Megamaser emission in Arp 220: the rest of the story *Free*

W. A. Baan et al., 2023

Monthly Notices of the Royal Astronomical Society, Volume 523, Issue 4, pp.5487-5501

<https://academic.oup.com/mnras/article/523/4/5487/7199810?login=false>

Medicina, Noto

3) From binary to singular: The AGN PSO J334.2028+1.4075 under the high-resolution scope

P. Benke et al., 2023

Astronomy & Astrophysics, Volume 677, id.A1, 8 pp.

https://www.aanda.org/articles/aa/full_html/2023/09/aa46904-23/aa46904-23.html

Medicina

4) Constraints on the Persistent Radio Source Associated with FRB 20190520B Using the European VLBI Network

Bhandari, S. et al., 2023

The Astrophysical Journal Letters, Volume 958, Issue 2, id.L19, 11 pp.

<https://iopscience.iop.org/article/10.3847/2041-8213/ad083f>

Medicina, Noto

5) Precessing jet nozzle connecting to a spinning black hole in M87

Y. Cui et al, 2023

Nature, Volume 621, Issue 7980, p.711-715

<https://www.nature.com/articles/s41586-023-06479-6>

Medicina, SRT

6) J2102+6015: an Intriguing Radio-loud Active Galactic Nucleus in the Early Universe

S. Frey, et al. 2023

15th European VLBI Network Mini-Symposium and Users' Meeting, 11-15 July, 2022, University College Cork, Ireland; published August 22, 2023. Online at

<https://pos.sissa.it/cgi-bin/reader/conf.cgi?confid=428>, id.22

Medicina, Noto

7) Filamentary structures as the origin of blazar jet radio variability

A. Fuentes et al., 2023

Nature Astronomy, Volume 7, p. 1359-1367

<https://www.nature.com/articles/s41550-023-02105-7>

Medicina, Noto

8) The Detection of a Compact Radio Feature in a Seyfert Galaxy After an Accretion Rate Change

K. É. Gabányi et al., 2023

eprint arXiv:2304.10125

<https://arxiv.org/pdf/2304.10125>

Medicina, Noto, SRT

9) Jets in FR0 radio galaxies

G. Giovannini et al., 2023

Astronomy & Astrophysics, Volume 672, id.A104, 12 pp.

https://www.aanda.org/articles/aa/full_html/2023/04/aa45395-22/aa45395-22.html

Medicina

10) The Past and Future of East Asia to Italy: Nearly Global VLBI

Giovannini, G. et al., 2023

Galaxies, Volume 11, Issue 2, id.49

<https://www.mdpi.com/2075-4434/11/2/49>

Medicina, Noto, SRT

11) VLBI astrometry on the white dwarf pulsar AR Scorpii *Free*

P. Jiang et al., 2023

Monthly Notices of the Royal Astronomical Society, Volume 520, Issue 2, pp.2942-2951

<https://academic.oup.com/mnras/article/520/2/2942/7010763?login=false>

Medicina, Noto

12) The Radio Parallax of the Crab Pulsar: A First VLBI Measurement Calibrated with Giant Pulses

R. Lin et al., 2023

The Astrophysical Journal, Volume 952, Issue 2, id.161, 13 pp.

<https://iopscience.iop.org/article/10.3847/1538-4357/acdc98>

Medicina

13) The magnetic field of a magnetohydrodynamic disk wind: Water maser observations and simulations

L. Moscadelli et al., 2023

Astronomy & Astrophysics, Volume 680, id.A107, 14 pp.

https://www.aanda.org/articles/aa/full_html/2023/12/aa47257-23/aa47257-23.html#R41

Medicina, SRT

14) The Birth of a Relativistic Jet Following the Disruption of a Star by a Cosmological Black Hole

D. R. Pasham et al., 2023

Nature Astronomy, Volume 7, p. 88-104

<https://www.nature.com/articles/s41550-022-01820-x>

Medicina, Noto

15) The First Multi-Frequency Synthesis Space-VLBI Observations of 0059+581 with Radioastron

Rudnitskiy, A. et al., 2023

Journal of the Korean Astronomical Society, vol. 56, pp. 91-96 (2023)

<https://koreascience.or.kr/article/JAKO202304757636042.page>

Medicina

16) Radio jet precession in M 81*

S. D. von Fellenberg et al., 2023

Astronomy & Astrophysics, Volume 672, id.L5, 10 pp.

https://www.aanda.org/articles/aa/full_html/2023/04/aa45506-22/aa45506-22.html

Medicina, Noto

17) An interferometric SETI observation of Kepler-111 b *Open Access*

K. Wandia et al., 2023

Monthly Notices of the Royal Astronomical Society, Volume 522, Issue 3, pp.3784-3794

<https://academic.oup.com/mnras/article/522/3/3784/7134084?login=false>

Medicina, Noto

18) VLBI Observations of a sample of Palomar-Green quasars II: characterizing the parsec-scale radio emission *Free*

A. Wang et al., 2023

Monthly Notices of the Royal Astronomical Society, Volume 525, Issue 4, pp.6064-6083

<https://academic.oup.com/mnras/article/525/4/6064/7259168?login=false>

Medicina

19) Intermediate-mass black holes: finding of episodic, large-scale, and powerful jet activity in a dwarf galaxy *Open Access*

J. Yang et al., 2023

Monthly Notices of the Royal Astronomical Society, Volume 520, Issue 4, pp.5964-5973

<https://academic.oup.com/mnras/article/520/4/5964/7036806?login=false>

Medicina, SRT

20) The innermost jet in the hidden ultra-luminous X-ray source Cygnus X-3 *Open Access*

J. Yang et al., 2023

Monthly Notices of the Royal Astronomical Society: Letters, Volume 526, Issue 1, pp.L1-L7

<https://academic.oup.com/mnrasl/article/526/1/L1/7236871?login=false>

Medicina, Noto

Northern Cross

1) FRB–SRB–XRB: Geometric and relativistic beaming constraints of fast radio bursts from the Galactic magnetar SGR J1935+2154 *Free*

Connery J. C., Bing Z.

Monthly Notices of the Royal Astronomical Society, Volume 519, Issue 4, pp.6284-6296

<https://academic.oup.com/mnras/article/519/4/6284/6961060?login=false>

2) Observations of the Fast Radio Burst FRB 20220912A with the LPA LPI and Fast Radio Telescopes

Fedorova, V. A. et al., 2023

Astronomy Reports, Volume 67, Issue 10, p.970-978

<https://link.springer.com/article/10.1134/S1063772923100050>

3) Track detection of high-velocity resident space objects in Low Earth Orbit

C. A. Magro et al., 2023

Advances in Space Research, Volume 71, Issue 3, p. 1670-1681.

<https://www.sciencedirect.com/science/article/pii/S0273117722009097?via%3Dihub>

4) The Northern Cross Fast Radio Burst project III. The FRB–magnetar connection in a sample of nearby galaxies

D. Pellicciari et al. 2024

Astronomy & Astrophysics, Volume 674, id.A223, 8 pp.

https://www.aanda.org/articles/aa/full_html/2023/06/aa46307-23/aa46307-23.html

5) Four new bursts from FRB 20220912A at 408 MHz

ATel #16130; D. Pellicciari et al., 2023

The Astronomer's Telegram, No. 16130

<https://www.astronomersteletgram.org/?read=16130>

Geodetic VLBI

Per ogni entry e' indicato quali telescopi sono coinvolti.

1) VLBI celestial and terrestrial reference frames VIE2022b

H. Krásná et al., 2023

Astronomy & Astrophysics, Volume 679, id.A53, 13 pp.

https://www.aanda.org/articles/aa/full_html/2023/11/aa45434-22/aa45434-22.html

Noto

2) Is the Sicily Channel a simple Rifting Zone? New evidence from seismic analysis with geodynamic implications

M. Maiorana et al., 2023

Tectonophysics, Volume 864, article id. 230019.

<https://www.sciencedirect.com/science/article/pii/S0040195123003177?via%3Dihub>

Noto

3) Effects of non-tidal loading applied in VLBI-only terrestrial reference frames

M. Glomsda et al., 2023

Journal of Geodesy, Volume 97, Issue 8, id.76

<https://link.springer.com/article/10.1007/s00190-023-01766-6>