# Antonio Rius

List of Publications by Year
in descending order

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|---|---|---|---|
| 112 papers | 3,786 citations | 109264 35 h-index | 138417 58 g-index |
| 115 all docs | 115 docs citations | 115 times ranked | 1940 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Estimation of the transmitter and receiver differential biases and the ionospheric total electron content from Global Positioning System observations. Radio Science, 1994, 29, 577-586. | 0.8 | 384 |
| 2 | First spaceborne phase altimetry over sea ice using TechDemoSatâ€1 GNSSâ€R signals. Geophysical Research Letters, 2017, 44, 8369-8376. | 1.5 | 150 |
| 3 | Altimetric Analysis of the Sea-Surface GPS-Reflected Signals. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 2119-2127. | 2.7 | 140 |
| 4 | Consolidating the Precision of Interferometric GNSS-R Ocean Altimetry Using Airborne Experimental Data. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 4992-5004. | 2.7 | 130 |
| 5 | GNSSâ€R groundâ€based and airborne campaigns for ocean, land, ice, and snow techniques: Application to the GOLDâ€RTR data sets. Radio Science, 2011, 46, . | 0.8 | 108 |
| 6 | GEROS-ISS: GNSS REflectometry, Radio Occultation, and Scatterometry Onboard the International Space Station. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 4552-4581. | 2.3 | 99 |
| 7 | Improving the vertical resolution of ionospheric tomography with GPS Occultations. Geophysical Research Letters, 1997, 24, 2291-2294. | 1.5 | 94 |
| 8 | Sea surface state measured using GPS reflected signals. Geophysical Research Letters, 2002, 29, 37-1-37-4. | 1.5 | 92 |
| 9 | Phase Altimetry With Dual Polarization GNSS-R Over Sea Ice. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 2112-2121. | 2.7 | 91 |
| 10 | A GPS-Reflections Receiver That Computes Doppler/Delay Maps in Real Time. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 156-174. | 2.7 | 81 |
| 11 | Altimetry with GNSS-R interferometry: first proof of concept experiment. GPS Solutions, 2012, 16, 231-241. | 2.2 | 81 |
| 12 | Mediterranean Balloon Experiment: ocean wind speed sensing from the stratosphere, using GPS reflections. Remote Sensing of Environment, 2003, 88, 351-362. | 4.6 | 80 |
| 13 | Assessment of Spaceborne GNSS-R Ocean Altimetry Performance Using CYGNSS Mission Raw Data. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 238-250. | 2.7 | 78 |
| 14 | Characterization of dry-snow sub-structure using GNSS reflected signals. Remote Sensing of Environment, 2012, 124, 122-134. | 4.6 | 73 |
| 15 | Lake Level and Surface Topography Measured With Spaceborne GNSSâ€Reflectometry From CYGNSS Mission: Example for the Lake Qinghai. Geophysical Research Letters, 2018, 45, 13,332. | 1.5 | 71 |
| 16 | A two-layer model of the ionosphere using Global Positioning System data. Geophysical Research Letters, 1997, 24, 393-396. | 1.5 | 69 |
| 17 | Revisiting the GNSS-R Waveform Statistics and Its Impact on Altimetric Retrievals. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 2854-2871. | 2.7 | 65 |
| 18 | First Precise Spaceborne Sea Surface Altimetry With GNSS Reflected Signals. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 102-112. | 2.3 | 64 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | The very flat radio spectrum of 0735 plus 178 - A cosmic conspiracy. Astrophysical Journal, 1980, 238, L123. | 1.6 | 64 |
| 20 | Detection of Arctic Ocean tides using interferometric GNSS-R signals. Geophysical Research Letters, 2011, 38, n/a-n/a. | 1.5 | 60 |
| 21 | Optimization and Performance Analysis of Interferometric GNSS-R Altimeters: Application to the PARIS IoD Mission. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 1436-1451. | 2.3 | 58 |
| 22 | Three-Dimensional Variational Data Assimilation of Ground-Based GPS ZTD and Meteorological Observations during the 14 December 2001 Storm Event over the Western Mediterranean Sea. Monthly Weather Review, 2004, 132, 749-763. | 0.5 | 57 |
| 23 | GNSS Transpolar Earth Reflectometry exploriNg System (G-TERN): Mission Concept. IEEE Access, 2018, 6, 13980-14018. | 2.6 | 55 |
| 24 | A new technique to sense non-Gaussian features of the sea surface from L-band bi-static GNSS reflections. Remote Sensing of Environment, 2008, 112, 2927-2937. | 4.6 | 52 |
| 25 | GPS tomography of the ionospheric electron content with a correlation functional. IEEE Transactions on Geoscience and Remote Sensing, 1998, 36, 143-153. | 2.7 | 51 |
| 26 | CAROLS: A New Airborne L-Band Radiometer for Ocean Surface and Land Observations. Sensors, 2011, 11, 719-742. | 2.1 | 51 |
| 27 | Expansion of SN 1993J. Science, 1995, 270, 1475-1478. | 6.0 | 48 |
| 28 | Discovery of shell-like radio-structure in SN1993J. Nature, 1995, 373, 44-45. | 13.7 | 47 |
| 29 | The shape, expansion rate and distance of supernova 1993J from VLBI measurements. Nature, 1994, 368, 610-613. | 13.7 | 44 |
| 30 | Tomography of the lower troposphere using a small dense network of GPS receivers. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 439-447. | 2.7 | 44 |
| 31 | Analysis of ionospheric electron density distribution from GPS/MET occultations. IEEE Transactions on Geoscience and Remote Sensing, 1998, 36, 383-394. | 2.7 | 43 |
| 32 | VLBI Observations of the Ultracompact Radio Nucleus of the Galaxy M81. Astrophysical Journal, 1996, 457, 604. | 1.6 | 43 |
| 33 | The Use of GPS to Validate NWP Systems: The HIRLAM Model. Journal of Atmospheric and Oceanic Technology, 2000, 17, 773-787. | 0.5 | 39 |
| 34 | Sensitivity of PAZ LEO Polarimetric GNSS Radio-Occultation Experiment to Precipitation Events. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 190-206. | 2.7 | 38 |
| 35 | GNSS-R Derived Centimetric Sea Topography: An Airborne Experiment Demonstration. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 1468-1478. | 2.3 | 37 |
| 36 | Feasibility of GNSS-R Ice Sheet Altimetry in Greenland Using TDS-1. Remote Sensing, 2017, 9, 742. | 1.8 | 36 |

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| 37 | Panic anxiety, under the weather?. International Journal of Biometeorology, 2005, 49, 238-243. | 1.3 | 35 |
| 38 | A high-resolution radio image of a young supernova. Nature, 1991, 350, 212-214. | 13.7 | 33 |
| 39 | Experimental Evaluation of GNSS-Reflectometry Altimetric Precision Using the P(Y) and C/A Signals. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 1493-1500. | 2.3 | 33 |
| 40 | Sensing atmospheric structure using small-scale space geodetic networks. Geophysical Research Letters, 1999, 26, 2445-2448. | 1.5 | 32 |
| 41 | Mitigation of Direct Signal Cross-Talk and Study of the Coherent Component in GNSS-R. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 279-283. | 1.4 | 32 |
| 42 | Experimental Results of an X-Band PARIS Receiver Using Digital Satellite TV Opportunity Signals Scattered on the Sea Surface. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 5704-5711. | 2.7 | 31 |
| 43 | Initial Results of Typhoon Wind Speed Observation Using Coastal GNSS-R of BeiDou GEO Satellite. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 4720-4729. | 2.3 | 31 |
| 44 | Atmospheric polarimetric effects on GNSS radio occultations: the ROHP-PAZ field campaign. Atmospheric Chemistry and Physics, 2016, 16, 635-649. | 1.9 | 30 |
| 45 | Electron density extrapolation above F2 peak by the linear Varyâ€Chap model supporting new Global Navigation Satellite Systemsâ€LEO occultation missions. Journal of Geophysical Research: Space Physics, 2017, 122, 9003-9014. | 0.8 | 30 |
| 46 | The milli-arcsecond images of Q0957 + 561. Astrophysical Journal, 1984, 287, 538. | 1.6 | 30 |
| 47 | Detection of a Compact Radio Source near the Center of a Gravitational Lens: Quasar Image or Galactic Core?. Science, 1983, 219, 54-56. | 6.0 | 27 |
| 48 | Estimation of tropospheric zenith delay and gradients over the Madrid area using GPS and WVR data. Geophysical Research Letters, 1999, 26, 447-450. | 1.5 | 27 |
| 49 | VLBI observations of the polarized radio emission from the quasar 3C 454.3. Astrophysical Journal, 1984, 286, 503. | 1.6 | 27 |
| 50 | Delay Tracking in Spaceborne GNSS-R Ocean Altimetry. IEEE Geoscience and Remote Sensing Letters, 2013, 10, 57-61. | 1.4 | 26 |
| 51 | WAVPY: A GNSS-R open source software library for data analysis and simulation. , 2017, , . | | 26 |
| 52 | Sensing Heavy Precipitation With GNSS Polarimetric Radio Occultations. Geophysical Research Letters, 2019, 46, 1024-1031. | 1.5 | 26 |
| 53 | On the retrieval of the specular reflection in GNSS carrier observations for ocean altimetry. Radio Science, 2012, 47, . | 0.8 | 25 |
| 54 | Monitoring sea-ice and dry snow with GNSS reflections. , 2010, , . | | 24 |

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| 55 | Proper Motion of Components in 4C 39.25. Astronomical Journal, 1995, 110, 2586. | 1.9 | 24 |
| 56 | First spaceborne demonstration of BeiDou-3 signals for GNSS reflectometry from CYGNSS constellation. Chinese Journal of Aeronautics, 2021, 34, 1-10. | 2.8 | 23 |
| 57 | PARIS Interferometric Technique proof of concept: Sea surface altimetry measurements. , 2012, , . | | 22 |
| 58 | The contributions of the MAGIC project to the COST 716 objectives of assessing the operational potential of ground-based GPS meteorology on an international scale. Physics and Chemistry of the Earth, 2001, 26, 433-437. | 0.6 | 19 |
| 59 | Radio-size estimates of SN 1993J. Astrophysical Journal, 1994, 424, L25. | 1.6 | 19 |
| 60 | Exploration of Multi-Mission Spaceborne GNSS-R Raw IF Data Sets: Processing, Data Products and Potential Applications. Remote Sensing, 2022, 14, 1344. | 1.8 | 19 |
| 61 | A Software-Defined GNSS Reflectometry Recording Receiver with Wide-Bandwidth, Multi-Band Capability and Digital Beam-Forming. Remote Sensing, 2017, 9, 450. | 1.8 | 18 |
| 62 | Effects of PRN-Dependent ACF Deviations on GNSS-R Wind Speed Retrieval. IEEE Geoscience and Remote Sensing Letters, 2019, 16, 327-331. | 1.4 | 17 |
| 63 | Variational Retrievals of High Winds Using Uncalibrated CyGNSS Observables. Remote Sensing, 2020, 12, 3930. | 1.8 | 15 |
| 64 | Measuring Greenland Ice Sheet Melt Using Spaceborne GNSS Reflectometry From TechDemoSatâ€1. Geophysical Research Letters, 2020, 47, e2019GL086477. | 1.5 | 15 |
| 65 | MM5 derived ZWDs compared to observational results from VLBI, GPS and WVR. Physics and Chemistry of the Earth, 2002, 27, 301-308. | 1.2 | 14 |
| 66 | Relative motions in Europe studied with a geodetic VLBI network. Geophysical Journal International, 1994, 117, 763-768. | 1.0 | 13 |
| 67 | Ionospheric calibration of radar altimeters using GPS tomography. Geophysical Research Letters, 1998, 25, 3771-3774. | 1.5 | 13 |
| 68 | Sensing atmospheric structure: Tropospheric tomographic results of the small-scale GPS campaign at the Onsala Space Observatory. Earth, Planets and Space, 2000, 52, 941-945. | 0.9 | 12 |
| 69 | The use of GPS buoys in the determination of oceanic variables. Earth, Planets and Space, 2000, 52, 1113-1116. | 0.9 | 12 |
| 70 | Review of the CALIMAS Team Contributions to European Space Agencyâ€™s Soil Moisture and Ocean Salinity Mission Calibration and Validation. Remote Sensing, 2012, 4, 1272-1309. | 1.8 | 11 |
| 71 | The Impact of Inter-Modulation Components on Interferometric GNSS-Reflectometry. Remote Sensing, 2016, 8, 1013. | 1.8 | 11 |
| 72 | Is Accurate Synoptic Altimetry Achievable by Means of Interferometric GNSS-R?. Remote Sensing, 2019, 11, 505. | 1.8 | 11 |

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| 73 | Deep 8.4 GHz VLBI Images of Seven Faint Nuclei in Lobeâ€dominated Quasars. Astrophysical Journal, 1999, 511, 84-104. | 1.6 | 10 |
| 74 | Ionospheric tomography using Ã˜rsted GPS measurements - preliminary results. Physics and Chemistry of the Earth, 2001, 26, 173-176. | 0.6 | 9 |
| 75 | A raytracing inversion procedure for the extraction of the atmospheric refractivity from GNSS travel-time data. Physics and Chemistry of the Earth, 2004, 29, 213-224. | 1.2 | 8 |
| 76 | Interferometric GNSS-R achievable altimetric performance and compression/denoising using the wavelet transform: An experimental study. , 2012, , . | | 8 |
| 77 | Spatio-temporal tomography of the lower troposphere using GPS signals. Physics and Chemistry of the Earth, 2001, 26, 405-411. | 0.6 | 7 |
| 78 | Zenith total delay study of a mesoscale convective system: GPS observations and fine-scale modeling. Tellus, Series A: Dynamic Meteorology and Oceanography, 2002, 54, 138-147. | 0.8 | 7 |
| 79 | Centimeter repeatability of the VLBI estimates of European baselines. Bulletin Geodesique, 1992, 66, 21-26. | 0.4 | 6 |
| 80 | Ionospheric calibration of single frequency VLBI and GPS observations using dual GPS data. Bulletin Geodesique, 1994, 68, 230-235. | 0.4 | 6 |
| 81 | A PIM-aided kalman filter for gps tomography of the ionospheric electron content. Physics and Chemistry of the Earth, Part C: Solar, Terrestrial and Planetary Science, 1999, 24, 365-369. | 0.2 | 6 |
| 82 | Integrating NWP products into the analysis of GPS observables. Physics and Chemistry of the Earth, 2002, 27, 377-383. | 1.2 | 6 |
| 83 | A 3 GPS-channels Doppler-delay receiver for remote sensing applications. , 0, , . | | 6 |
| 84 | Applications of Spaceborne GNSS-R over Inland Waters and Wetlands. , 2019, , . | | 6 |
| 85 | A near real time system for tropospheric monitoring using IGS hourly data. Earth, Planets and Space, 2000, 52, 681-684. | 0.9 | 5 |
| 86 | Pycaro's instrument proof of concept. , 2012, , . | | 5 |
| 87 | Untangling rain structure from polarimetric GNSS Radio Occultation observables: a 2D tomographic approach. European Journal of Remote Sensing, 2016, 49, 571-585. | 1.7 | 5 |
| 88 | Measuring geocentric radial coordinates with a non-fiducial GPS network. Bulletin Geodesique, 1995, 69, 320-328. | 0.4 | 4 |
| 89 | Sea surface slopes’ PDF from GNSS reflected signals. , 2007, , . | | 3 |
| 90 | GNSS Signal Interference Classified by Means of a Supervised Learning Method Applied in the Time-Frequency Domain. , 2009, , . | | 3 |

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| 91 | Reflectometry. , 2017, , 1163-1186. | | 3 |
| 92 | Comparison of software and techniques for water vapor estimation using German near real-time GPS data. Physics and Chemistry of the Earth, 2001, 26, 417-420. | 0.6 | 2 |
| 93 | Submeter ocean altimetry with GPS L1 C/A signal. , 2012, , . | | 2 |
| 94 | Detection and Measurement of Moving Targets Using X-band Digital Satellite TV Signals. , 2018, , . | | 2 |
| 95 | Radio light curve of the periodic radio star LSI+61ï¿½303 AT 3.6 CM wavelength. Astrophysics and Space Science, 1990, 169, 203-204. | 0.5 | 1 |
| 96 | Incorporation of GPS data into a parameterized ionospheric model for tomography of the electron distribution of the ionosphere. , 1998, 3495, 397. | | 1 |
| 97 | SCALES: SEVIRI and GERB CaL/VaL area for large-scale field experiments. , 2004, , . | | 1 |
| 98 | Parallel workload analysis in SMP platform: a new modelling approach to infer the hardware efficiency for remote sensing application. Proceedings of SPIE, 2009, , . | 0.8 | 1 |
| 99 | Preliminary error budget of a GNSS-R spaceborne mission. , 2011, , . | | 1 |
| 100 | One-bit digital cross-correlation in the PARIS-IOD. , 2011, , . | | 1 |
| 101 | Advances in GNSS-R altimetry. , 2017, , . | | 1 |
| 102 | Polarimetric Gnss Radio-Occultations Aboard Paz: Commissioning Phase and Preliminary Results. , 2018, , . | | 1 |
| 103 | Experimental Validation of GNSS Interferometric Radio Occultation. Remote Sensing, 2019, 11, 2758. | 1.8 | 1 |
| 104 | A search at the millijansky level for milli-arcsecond cores in a complete sample of radio galaxies. Astrophysical Journal, 1984, 284, 519. | 1.6 | 1 |
| 105 | Spanish Participation in the Millimeter Array. Astrophysics and Space Science, 1998, 263, 381-388. | 0.5 | 0 |
| 106 | VLBI Observations of Supernova 1993J: The First 1000 Days. International Astronomical Union Colloquium, 1998, 164, 355-356. | 0.1 | 0 |
| 107 | ASAP, towards a PARIS instrument for space. , 2007, , . | | 0 |
| 108 | Heterogeneous transmission and parallel computing platform (HTPCP) for remote sensing applications. Proceedings of SPIE, 2011, , . | 0.8 | 0 |

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| 109 | Prediction of GNSS-R altimetry precision based on waveform statistics. , 2017, , . | | 0 |
| 110 | Bi-Static Reflectometry Using Soop for Atmospheric Applications. , 2018, , . | | 0 |
| 111 | Use of global navigation satellite systems for the atmospheric calibration of radar altimeters. , 1998, , . | | 0 |
| 112 | Standard Deviation of Spaceborne GNSS-R Ocean Scatterometry Measurements. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-16. | 2.7 | 0 |