# Sebastian E Lauro

List of Publications by Year
in descending order



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|---|---|---|---|
| 55 papers | 1,037 citations | 567281 15 h-index | 454955 30 g-index |
| 55 all docs | 55 docs citations | 55 times ranked | 1186 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Radar evidence of subglacial liquid water on Mars. Science, 2018, 361, 490-493. | 12.6 | 346 |
| 2 | Multiple subglacial water bodies below the south pole of Mars unveiled by new MARSIS data. Nature Astronomy, 2021, 5, 63-70. | 10.1 | 127 |
| 3 | The Moonâ€™s farside shallow subsurface structure unveiled by Changâ€™E-4 Lunar Penetrating Radar. Science Advances, 2020, 6, eaay6898. | 10.3 | 103 |
| 4 | Dielectric properties of Jovian satellite ice analogs for subsurface radar exploration: A review. Reviews of Geophysics, 2015, 53, 593-641. | 23.0 | 52 |
| 5 | Pitfalls in GPR Data Interpretation: False Reflectors Detected in Lunar Radar Cross Sections by Changâ€™e-3. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 1325-1335. | 6.3 | 44 |
| 6 | A controlled experiment to investigate the correlation between early-time signal attributes of ground-coupled radar and soil dielectric properties. Journal of Applied Geophysics, 2014, 101, 68-76. | 2.1 | 35 |
| 7 | GPR detectability of rocks in a Martian-like shallow subsoil: A numerical approach. Planetary and Space Science, 2012, 62, 31-40. | 1.7 | 25 |
| 8 | Analysis of GPR Early-Time Signal Features for the Evaluation of Soil Permittivity Through Numerical and Experimental Surveys. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 178-187. | 4.9 | 24 |
| 9 | Dielectric constant estimation of the uppermost Basal Unit layer in the martian Boreales Scopuli region. Icarus, 2012, 219, 458-467. | 2.5 | 23 |
| 10 | Permittivity estimation of layers beneath the northern polar layered deposits, Mars. Geophysical Research Letters, 2010, 37, . | 4.0 | 18 |
| 11 | Estimation of subsurface dielectric target depth for GPR planetary exploration: Laboratory measurements and modeling. Journal of Applied Geophysics, 2013, 93, 93-100. | 2.1 | 17 |
| 12 | Radar Signal Penetration and Horizons Detection on Europa Through Numerical Simulations. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 118-129. | 4.9 | 17 |
| 13 | Electromagnetic signal penetration in a planetary soil simulant: Estimated attenuation rates using GPR and TDR in volcanic deposits on Mount Etna. Journal of Geophysical Research E: Planets, 2017, 122, 1392-1404. | 3.6 | 17 |
| 14 | The Global Search for Liquid Water on Mars from Orbit: Current and Future Perspectives. Life, 2020, 10, 120. | 2.4 | 16 |
| 15 | Assessing the role of clay and salts on the origin of MARSIS basal bright reflections. Earth and Planetary Science Letters, 2022, 579, 117370. | 4.4 | 15 |
| 16 | GPR ESTIMATION OF THE GEOMETRICAL FEATURES OF BURIED METALLIC TARGETS IN TESTING CONDITIONS. Progress in Electromagnetics Research B, 2013, 49, 339-362. | 1.0 | 14 |
| 17 | Dielectric characterization of ice/MgSO 4 â‹…11H 2 O mixtures as Jovian icy moon crust analogues. Earth and Planetary Science Letters, 2016, 439, 11-17. | 4.4 | 13 |
| 18 | Regional stratigraphy of the south polar layered deposits (Promethei Lingula, Mars): â€œDiscontinuity-boundedâ€•units in images and radargrams. Icarus, 2018, 308, 76-107. | 2.5 | 11 |

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|---|---|---|---|
| 19 | Radio wave techniques for non-destructive archaeological investigations. Contemporary Physics, 2011, 52, 121-130. | 1.8 | 10 |
| 20 | Stratigraphy versus artefacts in the Changâ€™e-4 low-frequency radar. Nature Astronomy, 2021, 5, 890-893. | 10.1 | 10 |
| 21 | Efficient Modeling of the Crosstalk Between Two Coupled Microstrip Lines Over Nonconventional Materials Using an Hybrid Technique. IEEE Transactions on Magnetics, 2008, 44, 1482-1485. | 2.1 | 9 |
| 22 | Symmetrical Coupled Microstrip Lines With Epsilon Negative Metamaterial Loading. IEEE Transactions on Magnetics, 2009, 45, 1182-1185. | 2.1 | 9 |
| 23 | GPR measurements and FDTD simulations for landmine detection. , 2010, , . | | 8 |
| 24 | Coaxial-Cage Transmission Line for Electromagnetic Parameters Estimation. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 2938-2942. | 4.7 | 8 |
| 25 | Survivability of Anhydrobiotic Cyanobacteria in Salty Ice: Implications for the Habitability of Icy Worlds. Life, 2019, 9, 86. | 2.4 | 8 |
| 26 | MAPPING THE UNDISCOVERED RUINS OF POMPEII (NAPLES, ITALY) USING GROUND PENETRATING RADAR*. Archaeometry, 2012, 54, 203-212. | 1.3 | 7 |
| 27 | Liquid Water Detection under the South Polar Layered Deposits of Marsâ€”a Probabilistic Inversion Approach. Remote Sensing, 2019, 11, 2445. | 4.0 | 7 |
| 28 | Thermal and electromagnetic models for radar sounding of the galilean satellite icy crusts. , 2014, , . | | 6 |
| 29 | Groundâ€penetrating Radar in the Regio III (Pompeii, Italy): Archaeological Evidence. Archaeological Prospection, 2011, 18, 187-194. | 2.2 | 5 |
| 30 | An evaluation of the early-time GPR amplitude technique for electrical conductivity monitoring. , 2013, , . | | 5 |
| 31 | A critical analysis on the uncertainty computation in ground-penetrating radar-retrieved dry snow parameters. Geophysics, 2020, 85, H39-H49. | 2.6 | 4 |
| 32 | Loss tangent estimation from ground-penetrating radar data using Ricker wavelet centroid-frequency shift analysis. Geophysics, 2022, 87, H1-H12. | 2.6 | 4 |
| 33 | Dry snow permittivity evaluation from density: A critical review. , 2018, , . | | 3 |
| 34 | â€œUnconformity-Boundedâ€•Stratigraphic Units in the South Polar Layered Deposits (Promethei Lingula,) Tj ETQq0 0 0 rgBT /Overlock 0.3 | | 3 |
| 35 | Coupled microstriplines with ENG metamaterial loading: physical concepts, design formulas, and numerical simulations. , 2007, , . | | 2 |
| 36 | Shape reconstruction of scatterers by suitable inverse processing of GPR data. , 2012, , . | | 2 |

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|---|---|---|---|
| 37 | Numerical and experimental surveys on the GPR early-time signal features for the evaluation of shallow-soil permittivity. , 2014, , . | | 2 |
| 38 | Accurate analysis of GPR first-arrival signals for the evaluation of soil permittivity parameters. , 2015, , . | | 2 |
| 39 | Combined GPR and TDR measurements for snow thickness and density estimation. , 2015, , . | | 2 |
| 40 | Metamaterials as complex dielectrics in the design of a new class of integrated circuits. , 2007, , . | | 1 |
| 41 | Ground-Penetrating Radar technique to investigate historic eruptions on the Mt. Etna volcano (Sicily,) Tj ETQq1 1 0.784314 rgBT /Over | | 1 |
| 42 | Electromagnetic parameters measurements of clay soils for Mars radar sounding. , 2014, , . | | 1 |
| 43 | Young sea ice electric properties estimation under non-optimal conditions. , 2017, , . | | 1 |
| 44 | Enhanced coupling values in coupled microstriplines using metamaterials. , 2007, , . | | 0 |
| 45 | Analysis of polarizing properties of Birefringent Negative Indexed Materials at optical frequencies. , 2008, , . | | 0 |
| 46 | BEM analysis of electromagnetic components filled with unconventional materials. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2008, 27, 1273-1285. | 0.9 | 0 |
| 47 | GPR characterization of rocks buried in the Martian subsoil. , 2010, , . | | 0 |
| 48 | A simple inversion model for the estimation of subsurface features of Mars poles. , 2010, , . | | 0 |
| 49 | Development of an efficient numerical set-up to predict the performance of ground-penetrating-radar systems for on-site Earth and planetary applications. , 2011, , . | | 0 |
| 50 | Dielectric measurements of saline ices: Implications for jovian satellites radar exploration. , 2011, , . | | 0 |
| 51 | Electromagnetic characterization of saline mixture for shallow radar exploration. , 2014, , . | | 0 |
| 52 | Volume Scattering Losses Evaluation for Radar Sounding of Jovian Icy Moons. , 2018, , . | | 0 |
| 53 | Dielectric Characterization of Ice/Na<inf>2</inf>SO<inf>4</inf>Â·10H<inf>2</inf>O Mixtures: Implications for Radar Investigations of Icy Satellites. , 2018, , . | | 0 |
| 54 | Radar detection of subglacial water under the south polar cap of Mars: Where are we now?. , 2020, , . | | 0 |

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|---|---|---|---|
| 55 | Combining active seismic data from Apollo 14 and 16 with ground penetrating radar results to examine the shallow lunar subsurface. Planetary and Space Science, 2022, 214, 105460. | 1.7 | 0 |