

# Sebastian E Lauro

## List of Publications by Year in descending order

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Version: 2024-02-01

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	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
2	Loss tangent estimation from ground-penetrating radar data using Ricker wavelet centroid-frequency shift analysis. Geophysics, 2022, 87, H1-H12.	2.6	4
3	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
4	Multiple subglacial water bodies below the south pole of Mars unveiled by new MARSIS data. Nature Astronomy, 2021, 5, 63-70.	10.1	127
5	Stratigraphy versus artefacts in the Chang'e-4 low-frequency radar. Nature Astronomy, 2021, 5, 890-893.	10.1	10
6	The Global Search for Liquid Water on Mars from Orbit: Current and Future Perspectives. Life, 2020, 10, 120.	2.4	16
7	The Moon's farside shallow subsurface structure unveiled by Chang'e-4 Lunar Penetrating Radar. Science Advances, 2020, 6, eaay6898.	10.3	103
8	A critical analysis on the uncertainty computation in ground-penetrating radar-retrieved dry snow parameters. Geophysics, 2020, 85, H39-H49.	2.6	4
9	Radar detection of subglacial water under the south polar cap of Mars: Where are we now?., 2020, , .		0
10	Liquid Water Detection under the South Polar Layered Deposits of Mars—a Probabilistic Inversion Approach. Remote Sensing, 2019, 11, 2445.	4.0	7
11	Survivability of Anhydrobiotic Cyanobacteria in Salty Ice: Implications for the Habitability of Icy Worlds. Life, 2019, 9, 86.	2.4	8
12	Pitfalls in GPR Data Interpretation: False Reflectors Detected in Lunar Radar Cross Sections by Chang'e-3. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 1325-1335.	6.3	44
13	Regional stratigraphy of the south polar layered deposits (Promethei Lingula, Mars): Discontinuity-bounded units in images and radargrams. Icarus, 2018, 308, 76-107.	2.5	11
14	Dry snow permittivity evaluation from density: A critical review. , 2018, , .		3
15	Volume Scattering Losses Evaluation for Radar Sounding of Jovian Icy Moons. , 2018, , .		0
16	Dielectric Characterization of Ice/Na <sub>2</sub> SO <sub>4</sub> ·10H <sub>2</sub> O Mixtures: Implications for Radar Investigations of Icy Satellites. , 2018, , .		0
17	Radar evidence of subglacial liquid water on Mars. Science, 2018, 361, 490-493.	12.6	346
18	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

#	ARTICLE	IF	CITATIONS
19	Young sea ice electric properties estimation under non-optimal conditions. , 2017, , .		1
20	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
21	Dielectric characterization of ice/MgSO <sub>4</sub> · 11H <sub>2</sub> O mixtures as Jovian icy moon crust analogues. Earth and Planetary Science Letters, 2016, 439, 11-17.	4.4	13
22	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
23	Dielectric properties of Jovian satellite ice analogs for subsurface radar exploration: A review. Reviews of Geophysics, 2015, 53, 593-641.	23.0	52
24	Accurate analysis of GPR first-arrival signals for the evaluation of soil permittivity parameters. , 2015, , .		2
25	Combined GPR and TDR measurements for snow thickness and density estimation. , 2015, , .		2
26	Electromagnetic parameters measurements of clay soils for Mars radar sounding. , 2014, , .		1
27	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
28	Thermal and electromagnetic models for radar sounding of the galilean satellite icy crusts. , 2014, , .		6
29	Electromagnetic characterization of saline mixture for shallow radar exploration. , 2014, , .		0
30	Numerical and experimental surveys on the GPR early-time signal features for the evaluation of shallow-soil permittivity. , 2014, , .		2
31	Unconformity-Bounded Stratigraphic Units in the South Polar Layered Deposits (Promethei Lingula,) Tj ETQq1 1 0.784314 rgBT /Ove	0.3	3
32	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
33	Ground-Penetrating Radar technique to investigate historic eruptions on the Mt. Etna volcano (Sicily,) Tj ETQq1 1 0.784314 rgBT /Ove		
34	Coaxial-Cage Transmission Line for Electromagnetic Parameters Estimation. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 2938-2942.	4.7	8
35	An evaluation of the early-time GPR amplitude technique for electrical conductivity monitoring. , 2013, , .		5
36	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

#	ARTICLE	IF	CITATIONS
37	Shape reconstruction of scatterers by suitable inverse processing of GPR data. , 2012, , .		2
38	MAPPING THE UNDISCOVERED RUINS OF POMPEII (NAPLES, ITALY) USING GROUND PENETRATING RADAR*. Archaeometry, 2012, 54, 203-212.	1.3	7
39	Dielectric constant estimation of the uppermost Basal Unit layer in the martian Boreales Scopuli region. Icarus, 2012, 219, 458-467.	2.5	23
40	GPR detectability of rocks in a Martian-like shallow subsoil: A numerical approach. Planetary and Space Science, 2012, 62, 31-40.	1.7	25
41	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
42	Radio wave techniques for non-destructive archaeological investigations. Contemporary Physics, 2011, 52, 121-130.	1.8	10
43	Groundâ€penetrating Radar in the <i>Regio III</i> (Pompeii, Italy): Archaeological Evidence. Archaeological Prospection, 2011, 18, 187-194.	2.2	5
44	Dielectric measurements of saline ices: Implications for jovian satellites radar exploration. , 2011, , .		0
45	Permittivity estimation of layers beneath the northern polar layered deposits, Mars. Geophysical Research Letters, 2010, 37, .	4.0	18
46	GPR measurements and FDTD simulations for landmine detection. , 2010, , .		8
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	Symmetrical Coupled Microstrip Lines With Epsilon Negative Metamaterial Loading. IEEE Transactions on Magnetics, 2009, 45, 1182-1185.	2.1	9
50	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
51	Analysis of polarizing properties of Birefringent Negative Indexed Materials at optical frequencies. , 2008, , .		0
52	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
53	Metamaterials as complex dielectrics in the design of a new class of integrated circuits. , 2007, , .		1
54	Coupled microstriplines with ENG metamaterial loading: physical concepts, design formulas, and numerical simulations. , 2007, , .		2

#	ARTICLE	IF	CITATIONS
55	Enhanced coupling values in coupled microstriplines using metamaterials. , 2007, , .		0