

Giovanni Toso

List of Publications by Year in descending order

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110
papers

1,808
citations

331259

21
h-index

301761

39
g-index

110
all docs

110
docs citations

110
times ranked

1261
citing authors

#	ARTICLE	IF	CITATIONS
1	Deterministic Synthesis of Uniform Amplitude Sparse Arrays via New Density Taper Techniques. IEEE Transactions on Antennas and Propagation, 2010, 58, 1949-1958.	3.1	144
2	Reflectarray Antennas for Dual Polarization and Broadband Telecom Satellite Applications. IEEE Transactions on Antennas and Propagation, 2015, 63, 1234-1246.	3.1	122
3	A Transmit-Receive Reflectarray Antenna for Direct Broadcast Satellite Applications. IEEE Transactions on Antennas and Propagation, 2011, 59, 3255-3264.	3.1	121
4	Design and Experimental Validation of Liquid Crystal-Based Reconfigurable Reflectarray Elements With Improved Bandwidth in F-Band. IEEE Transactions on Antennas and Propagation, 2013, 61, 1704-1713.	3.1	116
5	Sunflower Array Antenna with Adjustable Density Taper. International Journal of Antennas and Propagation, 2009, 2009, 1-10.	0.7	90
6	Scanning Performances of Wideband Connected Arrays in the Presence of a Backing Reflector. IEEE Transactions on Antennas and Propagation, 2009, 57, 3092-3102.	3.1	87
7	Array Antennas With Jointly Optimized Elements Positions and Dimensions Part II: Planar Circular Arrays. IEEE Transactions on Antennas and Propagation, 2014, 62, 1627-1639.	3.1	57
8	A Transportable Reflectarray Antenna for Satellite Ku-band Emergency Communications. IEEE Transactions on Antennas and Propagation, 2015, 63, 1393-1407.	3.1	55
9	A Lossless Beam-Forming Network for Linear Arrays Based on Overlapped Sub-Arrays. IEEE Transactions on Antennas and Propagation, 2014, 62, 1769-1778.	3.1	46
10	The Generalized Direct Optimization Technique for Printed Reflectarrays. IEEE Transactions on Antennas and Propagation, 2014, 62, 1690-1700.	3.1	42
11	Multibeam antennas for very high throughput satellites in Europe: Technologies and trends. , 2017, , .		41
12	Phase-Gradient Meta-Dome for Increasing Grating-Lobe-Free Scan Range in Phased Arrays. IEEE Transactions on Antennas and Propagation, 2018, 66, 3973-3982.	3.1	41
13	Aperiodic Arrays for Spaceborne SAR Applications. IEEE Transactions on Antennas and Propagation, 2012, 60, 2285-2294.	3.1	40
14	Characterization of a Dual-Polarized Connected-Dipole Array for Ku-Band Mobile Terminals. IEEE Transactions on Antennas and Propagation, 2016, 64, 591-598.	3.1	37
15	Electrical characterisation of liquid crystals at millimetre wavelengths using frequency selective surfaces. Electronics Letters, 2012, 48, 611.	0.5	36
16	Analysis of a dual-reflectarray antenna. IET Microwaves, Antennas and Propagation, 2011, 5, 1636.	0.7	35
17	Flat Reflectarray That Generates Adjacent Beams by Discriminating in Dual Circular Polarization. IEEE Transactions on Antennas and Propagation, 2019, 67, 3733-3742.	3.1	35
18	Array Antennas With Jointly Optimized Elements Positions and Dimensions Part I: Linear Arrays. IEEE Transactions on Antennas and Propagation, 2014, 62, 1619-1626.	3.1	29

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19	Electromagnetic scattering from bounded or infinite subsurface bodies. <i>Radio Science</i> , 1997, 32, 1347-1359.	0.8	28
20	Synthesis of circular and elliptical sparse arrays. <i>Electronics Letters</i> , 2011, 47, 304.	0.5	27
21	PHASE-ONLY SYNTHESIS OF FLAT APERIODIC REFLECTARRAYS. <i>Progress in Electromagnetics Research</i> , 2013, 133, 53-89.	1.6	27
22	Multibeam antennas based on phased arrays: An overview on recent ESA developments. , 2014, , .		23
23	FAST, PHASE-ONLY SYNTHESIS OF APERIODIC REFLECTARRAYS USING NUFFT AND CUDA. <i>Progress in Electromagnetics Research</i> , 2016, 156, 83-103.	1.6	23
24	A Dielectric Dome Antenna With Reduced Profile and Wide Scanning Capability. <i>IEEE Transactions on Antennas and Propagation</i> , 2021, 69, 747-759.	3.1	23
25	Dual-polarization reflectarray in Ku-band based on two layers of dipole arrays for a transmit/receive satellite antenna with South American coverage. <i>International Journal of Microwave and Wireless Technologies</i> , 2018, 10, 149-159.	1.5	22
26	Advanced Multibeam Antenna Configurations Based on Reflectarrays: Providing multispot coverage with a smaller number of apertures for satellite communications in the K and Ka bands. <i>IEEE Antennas and Propagation Magazine</i> , 2019, 61, 77-86.	1.2	22
27	A Dual Frequency Ka-Band Printed Fresnel Reflector for Ground Terminal Applications. <i>IEEE Transactions on Antennas and Propagation</i> , 2015, 63, 4352-4366.	3.1	20
28	Reflectarray to Generate Four Adjacent Beams per Feed for Multispot Satellite Antennas. <i>IEEE Transactions on Antennas and Propagation</i> , 2019, 67, 1265-1269.	3.1	20
29	Optimized Periodic MoM for the Analysis and Design of Dual Polarization Multilayered Reflectarray Antennas Made of Dipoles. <i>IEEE Transactions on Antennas and Propagation</i> , 2017, 65, 3623-3637.	3.1	17
30	Doubly Curved Reflectarray for Dual-Band Multiple Spot Beam Communication Satellites. <i>IEEE Transactions on Antennas and Propagation</i> , 2020, 68, 2087-2096.	3.1	17
31	A HYBRID DETERMINISTIC/METAHEURISTIC SYNTHESIS TECHNIQUE FOR NON-UNIFORMLY SPACED LINEAR PRINTED ANTENNA ARRAYS. <i>Progress in Electromagnetics Research</i> , 2013, 142, 107-121.	1.6	14
32	Deterministic Constrained Synthesis Technique for Conformal Aperiodic Linear Antenna Arrays Part I: Theory. <i>IEEE Transactions on Antennas and Propagation</i> , 2019, 67, 5951-5961.	3.1	14
33	High-gain wideband low-profile antenna. <i>Microwave and Optical Technology Letters</i> , 2006, 48, 2615-2619.	0.9	13
34	Transmit/Receive Parabolic Reflectarray to Generate Two Beams per Feed for Multispot Satellite Antennas in Ka-Band. <i>IEEE Transactions on Antennas and Propagation</i> , 2021, 69, 2673-2685.	3.1	13
35	Ka-Band Reconfigurable Reflectarrays Using Varactor Technology for Space Applications: A proposed design. <i>IEEE Antennas and Propagation Magazine</i> , 2022, 64, 27-38.	1.2	13
36	Ku Band Hemispherical Fully Electronic Antenna for Aircraft in Flight Entertainment. <i>International Journal of Antennas and Propagation</i> , 2009, 2009, 1-7.	0.7	12

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37	Multibeam antennas for global satellite coverage: theory and design. IET Microwaves, Antennas and Propagation, 2016, 10, 1475-1484.	0.7	12
38	A Ka-Band Spaceborne Synthetic Aperture Radar Instrument: A modular sparse array antenna design. IEEE Antennas and Propagation Magazine, 2019, 61, 97-104.	1.2	11
39	Design of Wideband Wide-Scanning Dual-Polarized Phased Array Covering Simultaneously Both the Ku- and the Ka-Satcom Bands. , 2020, , .		11
40	Cross-polar reduction in reflectarray antennas by means of element rotation. , 2016, , .		10
41	Deterministic Constrained Synthesis Technique for Conformal Aperiodic Linear Antenna Arrays”Part II: Applications. IEEE Transactions on Antennas and Propagation, 2019, 67, 5962-5973.	3.1	10
42	Evanescent-Mode Ridge-Waveguide Radiating Filters for Space Applications. IEEE Transactions on Antennas and Propagation, 2019, 67, 6286-6297.	3.1	10
43	Reconfigurable Antenna Based on Liquid Crystals for Continuous Beam Scanning with a Single Control. , 2019, , .		10
44	Phase-Only Synthesis for Large Planar Arrays via Zernike Polynomials and Invasive Weed Optimization. IEEE Transactions on Antennas and Propagation, 2022, 70, 1954-1964.	3.1	10
45	Optimization of the Array Element Layout for a Rotating Imaging Interferometer. IEEE Transactions on Antennas and Propagation, 2013, 61, 5057-5067.	3.1	9
46	A Stochastic Study of Large Arrays Related to the Number of Electrically Large Aperture Radiators. IEEE Transactions on Antennas and Propagation, 2014, 62, 3520-3533.	3.1	9
47	Development of Enabling Technologies for Ku-Band Airborne SATCOM Phased-Arrays. Electronics (Switzerland), 2020, 9, 488.	1.8	9
48	ON THE SCANNING PROPERTIES OF IMAGING ANTENNAS BASED ON DUAL CONFOCAL PARABOLOIDAL REFLECTORS. Progress in Electromagnetics Research M, 2014, 37, 95-107.	0.5	8
49	An Imaging Reflector System with Reduced Scanning Aberrations. IEEE Transactions on Antennas and Propagation, 2015, 63, 1342-1350.	3.1	8
50	A Ka-Band Active Aperiodic Constrained Lens Antenna for Multibeam Applications: Active discrete lens antennas are promising alternative solutions for multibeam coverage using a single aperture. IEEE Antennas and Propagation Magazine, 2019, 61, 60-68.	1.2	8
51	Design of Overlapped Subarrays Based on Aperture Reactive Loading. IEEE Transactions on Antennas and Propagation, 2020, 68, 5322-5333.	3.1	8
52	Hybrid Analog-Digital SAR Instrument With Reflector Antenna and Overlapped Subarray Feed for Earth Observation. IEEE Antennas and Wireless Propagation Letters, 2021, 20, 2110-2114.	2.4	7
53	Vertically Printable Evanescent Mode Filters. IEEE Microwave and Wireless Components Letters, 2022, 32, 1299-1302.	2.0	7
54	A comparison between two hybrid techniques for the scattering from finite frequency-selective surfaces. Microwave and Optical Technology Letters, 2001, 31, 248-252.	0.9	6

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55	Analysis of the S-band communication link between the automated transfer vehicle and the data relay satellites in the presence of the space station. IEEE Antennas and Propagation Magazine, 2002, 44, 12-23.	1.2	6
56	Projection based methodology for designing non-periodic, planar arrays. , 2008, , .		6
57	New Piecewise Linear Polyphase Sequences Based on a Spectral Domain Synthesis. IEEE Transactions on Information Theory, 2012, 58, 4890-4898.	1.5	6
58	Application of bifocal concept to dual reflectarray configurations for multi-beam satellite antennas in Ka-band. , 2017, , .		6
59	UNEQUAL POLYOMINO LAYERS FOR REDUCED SLL ARRAYS WITH SCANNING ABILITY. Progress in Electromagnetics Research, 2018, 162, 31-38.	1.6	6
60	Multi-channel Feedarray Reflector Antenna Based Radar Concept for HRWS SAR Imaging. , 2021, , .		6
61	An exact line integral representation of the physical optics field scattered from a penetrable planar structure illuminated by a plane wave. Microwave and Optical Technology Letters, 1999, 20, 13-17.	0.9	5
62	A Ku-Band Magnified Active Tx/Rx Multibeam Antenna Based on a Discrete Constrained Lens. Electronics (Switzerland), 2021, 10, 2824.	1.8	5
63	Po Analysis of the Scattering From Polygonal Flat-Plate Structures With Dielectric Inclusions. Journal of Electromagnetic Waves and Applications, 2000, 14, 693-711.	1.0	4
64	Reflectarrays antennas for SAR missions. , 2005, , .		4
65	A 1.3 m faceted reflectarray in Ku band. , 2012, , .		4
66	On the deterministic synthesis of aperiodic ring antenna arrays. , 2014, , .		4
67	Rotman Lenses with Ridged Waveguides in Q-Band. , 2020, , .		4
68	Parametric Analysis of Linear Periodic Arrays Generating Flat-Top Beams. Electronics (Switzerland), 2021, 10, 2452.	1.8	4
69	Finite-element boundary-integral analysis of electromagnetic scattering by a buried dielectric object. Microwave and Optical Technology Letters, 2000, 24, 422-426.	0.9	3
70	Fast Gaussian beam technique for the analysis of composite horn-reflector antenna systems. Microwave and Optical Technology Letters, 2004, 42, 95-100.	0.9	3
71	Design of dual-reflectarray antenna for beam scanning. , 2010, , .		3
72	High-performance curved contoured beam reflectarrays with reusable surface for multiple coverages. , 2017, , .		3

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73	Deterministic synthesis of conformal linear aperiodic antenna arrays. , 2017, , .		3
74	High-Gain Planar Array of Reactively Loaded Antennas for Limited Scan Range Applications. Electronics (Switzerland), 2020, 9, 1376.	1.8	3
75	A Dual-Band Circularly Polarized Patch Array Antenna for Phase-Only Beam Shaping with Element Rotation. Electronics (Switzerland), 2021, 10, 643.	1.8	3
76	A comparison between basis functions for the efficient invasive weed optimizationâ€based optimization of phaseâ€only linear array patterns. Microwave and Optical Technology Letters, 2021, 63, 1526-1531.	0.9	3
77	Scattering from dihedral corner reflectors with sinusoidally deformed faces. Microwave and Optical Technology Letters, 2000, 25, 246-251.	0.9	2
78	Design and analysis of printed reflectarrays with irregularly positioned array elements. , 2012, , .		2
79	Sparse array antennas with optimized elements positions and dimensions. , 2014, , .		2
80	Parametric analysis of flat top beam patterns generated by linear periodic arrays. , 2016, , .		2
81	Design of aperiodic frequency selective surfaces for compact quasi-optical networks. , 2017, , .		2
82	A Multibeam Parabolic Reflectarray for Onboard Tx and Rx Satellite Antennas At the Ka Band. , 2018, , .		2
83	Active Multibeam Antennas based on Rotman Lens Arrays. , 2019, , .		2
84	Bifocal Dual-Reflectarray Antenna to Generate a Complete Multiple Spot Beam Coverage for Satellite Communications in Ka-Band. Electronics (Switzerland), 2020, 9, 961.	1.8	2
85	An Optimal Procedure for the Design of Discrete Constrained Lens Antennas with Minimized Optical Aberrations. Part I: Two-Dimensional Architectures. Electronics (Switzerland), 2022, 11, 493.	1.8	2
86	An Optimal Procedure for the Design of Discrete Constrained Lens Antennas with Minimized Optical Aberrations. Part II: Three-Dimensional Multifocal Architectures. Electronics (Switzerland), 2022, 11, 503.	1.8	2
87	Backscattering By a Dihedral Corner Reflector With Surface Deformations. Journal of Electromagnetic Waves and Applications, 2000, 14, 833-851.	1.0	1
88	A new class of equi-amplitude omnidirectional linear arrays. , 2010, , .		1
89	A novel phase-only excitation law for omnidirectional arrays. , 2010, , .		1
90	A combined amplitude-density synthesis approach for the design of linear aperiodic arrays. , 2010, , .		1

#	ARTICLE	IF	CITATIONS
91	On the reduction of phase-aberrations in three-dimensional Rotman lens design. , 2012, , .		1
92	A novel Lossless BFN for linear arrays based on overlapped sub-arrays. , 2014, , .		1
93	Design of a Bifocal Dual Reflectarray System with Parabolic Main Surface for a Multifed Space Antenna. , 2018, , .		1
94	Parabolic Reflectarray Antenna to Generate Multiple Beams in Dual-Frequency and Dual-Circular Polarization. , 2021, , .		1
95	An Optimal Procedure for the Design of Discrete Constrained Lens Antennas with Minimized Optical Aberrations. Part III: Three-Dimensional Architectures with an Extended Field of View. Electronics (Switzerland), 2022, 11, 687.	1.8	1
96	Scattering from finite periodic structures: A comparison between measured and UAPO results. Microwave and Optical Technology Letters, 2002, 34, 340-341.	0.9	0
97	Spectral synthesis of piecewise linear polyphase codes for good aperiodic autocorrelation performance. , 2012, , .		0
98	A ku-band dual-polarization connected array of dipoles with wide-scan capability for in-flight entertainment. , 2012, , .		0
99	Circular sparse arrays with quantized weights. , 2012, , .		0
100	Design of dual-polarized contoured beam reflectarrays with cross-polar and sidelobe suppression. , 2012, , .		0
101	Sparse Arrays for SatCom Applications. , 2013, , .		0
102	Speeding up aperiodic reflectarray antenna analysis by CUDA dynamic parallelism. , 2014, , .		0
103	Tx/Rx multibeam satellite antenna array design assesment on a single aperture. , 2014, , .		0
104	A software tool for satellite advanced multibeam aperiodic array synthesis. , 2016, , .		0
105	High-Gain Flat-Top Antenna Sub-Arrays for Planar Arrays with Limited Field of View. , 2020, , .		0
106	Corrections to "Design of Overlapped Sub-Arrays Based on Aperture Reactive Loading". IEEE Transactions on Antennas and Propagation, 2021, 69, 3629-3629.	3.1	0
107	<title>Sea surface as seen at L-band microwaves: modeling and applications</title>. , 2002, , .		0
108	Parabolic reflectarray antenna to generate multiple beams for geostationary high throughput satellites in Ka-band. International Journal of Microwave and Wireless Technologies, 0, , 1-10.	1.5	0

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109	Antenna Design for Overlapped Array Fed Reflector OLAF SAR Instrument. , 2022, , .		0
110	Architecture of the Overlapped Subarray Fed Reflector Antenna SAR System. , 2022, , .		0