

# Jorge R. Costa

## List of Publications by Year in descending order

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131  
papers

2,533  
citations

186265

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docs citations

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times ranked

2010  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Electromagnetic Characterization of Textured Surfaces Formed by Metallic Pins. IEEE Transactions on Antennas and Propagation, 2008, 56, 405-415.   | 5.1  | 174       |
| 2  | Dual-Band Dual-Linear-to-Circular Polarization Converter in Transmission Mode Application to $\text{Ka}$ -Band Satellite Communications. IEEE Transactions on Antennas and Propagation, 2018, 66, 7128-7137. | 5.1  | 158       |
| 3  | Circular Polarization Wide-Angle Beam Steering at Ka-Band by In-Plane Translation of a Plate Lens Antenna. IEEE Transactions on Antennas and Propagation, 2015, 63, 5443-5455.                               | 5.1  | 149       |
| 4  | High Gain Dual-Band Beam-Steering Transmit Array for Satcom Terminals at Ka-Band. IEEE Transactions on Antennas and Propagation, 2017, 65, 3528-3539.  | 5.1  | 106       |
| 5  | Compact Beam-Steerable Lens Antenna for 60-GHz Wireless Communications. IEEE Transactions on Antennas and Propagation, 2009, 57, 2926-2933.  | 5.1  | 101       |
| 6  | A Broadband Implantable and a Dual-Band On-Body Repeater Antenna: Design and Transmission Performance. IEEE Transactions on Antennas and Propagation, 2014, 62, 2899-2908.                                   | 5.1  | 83        |
| 7  | Compact Ka-Band Lens Antennas for LEO Satellites. IEEE Transactions on Antennas and Propagation, 2008, 56, 1251-1258.  | 5.1  | 75        |
| 8  | Hybrid UHF/UWB Antenna for Passive Indoor Identification and Localization Systems. IEEE Transactions on Antennas and Propagation, 2013, 61, 354-361.   | 5.1  | 74        |
| 9  | Additional boundary condition for a wire medium connected to a metallic surface. New Journal of Physics, 2008, 10, 053011.   | 2.9  | 68        |
| 10 | Miniature Implantable Antennas for Biomedical Telemetry: From Simulation to Realization. IEEE Transactions on Biomedical Engineering, 2012, 59, 3140-3147.   | 4.2  | 64        |
| 11 | RFID Reader Antennas for Tag Detection in Self-Confined Volumes at UHF. IEEE Antennas and Propagation Magazine, 2011, 53, 39-50.   | 1.4  | 63        |
| 12 | RFID Smart Shelf With Confined Detection Volume at UHF. IEEE Antennas and Wireless Propagation Letters, 2008, 7, 773-776.  | 4.0  | 53        |
| 13 | Complex permittivity and anisotropy measurement of 3D-printed PLA at microwaves and millimeter-waves. , 2016, , .  |      | 53        |
| 14 | Evaluation of a New Wideband Slot Array for MIMO Performance Enhancement in Indoor WLANs. IEEE Transactions on Antennas and Propagation, 2011, 59, 1200-1206.  | 5.1  | 51        |
| 15 | Performance of a Crossed Exponentially Tapered Slot Antenna for UWB Systems. IEEE Transactions on Antennas and Propagation, 2009, 57, 1345-1352.   | 5.1  | 48        |
| 16 | Stereolithography-Based Antennas for Satellite Communications in Ka-Band. Proceedings of the IEEE, 2017, 105, 655-667.   | 21.3 | 46        |
| 17 | Antenna Design and Near-Field Characterization for Medical Microwave Imaging Applications. IEEE Transactions on Antennas and Propagation, 2019, 67, 4811-4824.   | 5.1  | 45        |
| 18 | 3D printed plastic 60 GHz lens: Enabling innovative millimeter wave antenna solution and system. , 2014, , .   |      | 43        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Phase-Delay Versus Phase-Rotation Cells for Circular Polarization Transmit Arrays Application to Satellite Ka-Band Beam Steering. IEEE Transactions on Antennas and Propagation, 2018, 66, 1236-1247. | 5.1 | 43        |
| 20 | Broadband UHF RFID Passive Tag Antenna for Near-Body Applications. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 136-139.   | 4.0 | 39        |
| 21 | Wideband Slot Antenna for WLAN Access Points. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 79-82.   | 4.0 | 38        |
| 22 | Compact Tapered Slot UWB Antenna With WLAN Band Rejection. IEEE Antennas and Wireless Propagation Letters, 2009, 8, 661-664.  | 4.0 | 36        |
| 23 | Ball Grid Array Module With Integrated Shaped Lens for 5G Backhaul/Fronthaul Communications in F-Band. IEEE Transactions on Antennas and Propagation, 2017, 65, 6380-6394.                            | 5.1 | 36        |
| 24 | Microwave Breast Imaging Using a Dry Setup. IEEE Transactions on Computational Imaging, 2020, 6, 167-180.   | 4.4 | 34        |
| 25 | Evaluation of a Double-Shell Integrated Scanning Lens Antenna. IEEE Antennas and Wireless Propagation Letters, 2008, 7, 781-784.  | 4.0 | 33        |
| 26 | Experimental verification of broadband superlensing using a metamaterial with an extreme index of refraction. Physical Review B, 2010, 81, .  | 3.2 | 31        |
| 27 | Broadband Integrated Lens for Illuminating Reflector Antenna With Constant Aperture Efficiency. IEEE Transactions on Antennas and Propagation, 2010, 58, 3805-3813.                                   | 5.1 | 31        |
| 28 | Dual-Band Skin-Adhesive Repeater Antenna for Continuous Body Signals Monitoring. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2018, 2, 25-32.                         | 3.4 | 31        |
| 29 | Passive UHF RFID Tag for Airport Suitcase Tracking and Identification. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 123-126.   | 4.0 | 30        |
| 30 | Mirror-Integrated Transparent Antenna for RFID Application. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 776-779.  | 4.0 | 29        |
| 31 | Superlens made of a metamaterial with extreme effective parameters. Physical Review B, 2008, 78, .  | 3.2 | 27        |
| 32 | Wideband Implantable Antenna for Body-Area High Data Rate Impulse Radio Communication. IEEE Transactions on Antennas and Propagation, 2016, 64, 1932-1940.  | 5.1 | 26        |
| 33 | Broadband Slot Feed for Integrated Lens Antennas. IEEE Antennas and Wireless Propagation Letters, 2007, 6, 396-400.   | 4.0 | 25        |
| 34 | Dielectric Lens Antennas. , 2016, , 1001-1064.  |     | 25        |
| 35 | DUAL-BAND IMPLANTABLE ANTENNAS FOR MEDICAL TELEMETRY: A FAST DESIGN METHODOLOGY AND VALIDATION FOR INTRA-CRANIAL PRESSURE MONITORING. Progress in Electromagnetics Research, 2013, 141, 161-183.      | 4.4 | 23        |
| 36 | 17.8 A compact 130GHz fully packaged point-to-point wireless system with 3D-printed 26dBi lens antenna achieving 12.5Gb/s at 1.55pJ/b/m. , 2017, , .  |     | 22        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | Tx-Rx Lens-Based Satellite-on-the-Move Ka-Band Antenna. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 1408-1411.  | 4.0 | 21        |
| 38 | Equivalent Circuit Modeling to Design a Dual-Band Dual Linear-to-Circular Polarizer Surface. IEEE Transactions on Antennas and Propagation, 2020, 68, 5730-5735.  | 5.1 | 21        |
| 39 | Design and Ranging Performance of a Low-profile UWB Antenna for WBAN Localization Applications. IEEE Transactions on Antennas and Propagation, 2014, 62, 6420-6427.                                     | 5.1 | 19        |
| 40 | Experimental verification of "waveguide"™ plasmonics. New Journal of Physics, 2017, 19, 123017.   | 2.9 | 19        |
| 41 | Synthesis of Shaped-Beam Radiation Patterns at Millimeter-Waves Using Transmit Arrays. IEEE Transactions on Antennas and Propagation, 2018, 66, 4017-4024.  | 5.1 | 19        |
| 42 | Experimental demonstration of a structured material with extreme effective parameters at microwaves. Applied Physics Letters, 2008, 93, 174103.   | 3.3 | 17        |
| 43 | Ball Grid Array-Module With Integrated Shaped Lens for WiGig Applications in Eyewear Devices. IEEE Transactions on Antennas and Propagation, 2016, 64, 872-882.   | 5.1 | 17        |
| 44 | ILASH - Software tool for the design of integrated lens antennas. , 2008, , .   |     | 16        |
| 45 | Review of 20 Years of Research on Microwave and Millimeter-wave Lenses at "Instituto de Telecomunica"oes". IEEE Antennas and Propagation Magazine, 2015, 57, 249-268.                                   | 1.4 | 16        |
| 46 | A 120 GHz 3D-printed plastic elliptical lens antenna with an IPD patch antenna source. , 2014, , .  |     | 13        |
| 47 | Design of a 40 dBi planar bifocal lens for mechanical beam steering at Ka-band. , 2016, , .   |     | 13        |
| 48 | Modified split-step Fourier method for the numerical simulation of soliton amplification in erbium-doped fibers with forward-propagating noise. IEEE Journal of Quantum Electronics, 2001, 37, 145-152. | 1.9 | 12        |
| 49 | RFID-based Smart Blood Stock System [Education Column]. IEEE Antennas and Propagation Magazine, 2015, 57, 54-65.  | 1.4 | 12        |
| 50 | Antenna phase center determination from amplitude measurements using a focusing lens. , 2010, , .   |     | 11        |
| 51 | Low-cost 3D-printed 240 GHz plastic lens fed by integrated antenna in organic substrate targeting sub-THz high data rate wireless links. , 2017, , .  |     | 11        |
| 52 | Development of an Anthropomorphic Phantom of the Axillary Region for Microwave Imaging Assessment. Sensors, 2020, 20, 4968.   | 3.8 | 11        |
| 53 | UHF RFID smart conveyor belt with confined detection range. , 2009, , .   |     | 10        |
| 54 | Bessel Beam Generation Using Dielectric Planar Lenses at Millimeter Frequencies. IEEE Access, 2020, 8, 216185-216196.   | 4.2 | 10        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 55 | Spatially Confined UHF RFID Detection With a Metamaterial Grid. IEEE Transactions on Antennas and Propagation, 2014, 62, 378-384.                                    | 5.1 | 9         |
| 56 | Millimeter-wave antenna-in-package solutions for WiGig and backhaul applications. , 2015, , .  |     | 9         |
| 57 | Benchmark of lens antennas for KA-band global earth observation from leo satellites. , 2006, , .   |     | 8         |
| 58 | Integrated imaging lens antenna with broadband feeds. , 2007, , .  |     | 8         |
| 59 | Reversed rainbow with a nonlocal metamaterial. Applied Physics Letters, 2014, 105, .   | 3.3 | 8         |
| 60 | A Graphical Aid for the Complex Permittivity Measurement at Microwave and Millimeter Wavelengths. IEEE Microwave and Wireless Components Letters, 2014, 24, 421-423. | 3.2 | 8         |
| 61 | Noncollimating MMW Polyethylene Lens Mitigating Dual-Source Offset From a Tx/Rx WiGig Module. IEEE Transactions on Antennas and Propagation, 2015, 63, 5908-5913.    | 5.1 | 8         |
| 62 | Multiple-Beam Focal-Plane Dual-Band Fabryâ€“PÃ©rot Cavity Antenna With Reduced Beam Degradation. IEEE Transactions on Antennas and Propagation, 2019, 67, 4348-4356. | 5.1 | 8         |
| 63 | 3D-Printed transmit-array antenna for broadband backhaul 5G links at V band. IEEE Antennas and Wireless Propagation Letters, 2020, , 1-1.                            | 4.0 | 8         |
| 64 | Resolving subwavelength objects with a crossed wire mesh superlens operated in backscattering mode. New Journal of Physics, 2011, 13, 053004.                        | 2.9 | 7         |
| 65 | Focal-Plane Multibeam Dual-Band Dielectric Lens for Ka-Band. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 432-436.                                      | 4.0 | 7         |
| 66 | Integrated Lens Antennas. Signals and Communication Technology, 2018, , 3-36.  | 0.5 | 7         |
| 67 | Dielectric Lens Antennas. , 2015, , 1-54.  |     | 7         |
| 68 | Broadband UHF RFID passive tag antenna for near-body operation. , 2012, , .  |     | 6         |
| 69 | Viability of wallâ€“embedded tag antenna for ultraâ€“wideband realâ€“time suitcase localisation. IET Microwaves, Antennas and Propagation, 2014, 8, 423-428.         | 1.4 | 6         |
| 70 | Prototype of a compact mechanically steered Ka-band antenna for satellite on-the-move. , 2016, , .   |     | 6         |
| 71 | Comparing liquid homogeneous and multilayer phantoms for human body implantable antennas. , 2016, , .  |     | 6         |
| 72 | 3D printing technology: Enabling innovative & cost effective industrial antenna solution. , 2016, , .  |     | 6         |

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|----|--|-----|-----------|
| 73 | Development of an indoor Wireless Personal Area Network based on mechanically steered millimeter-wave lens antenna. , 2010, , .  |     | 5         |
| 74 | Tapered waveguide feed for integrated dielectric lens antenna performance tests. , 2011, , .   |     | 5         |
| 75 | Antenna-filter-antenna-based cell for linear-to-circular polarizer transmit-array. , 2017, , .   |     | 5         |
| 76 | Applying Massively Parallel Computing to Multiscale Ka Dual-Band Transmit-Array Analysis Using FETI-2LM. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2020, 5, 235-244. | 2.2 | 5         |
| 77 | Design of a shaped double-shell lens feed for a quasi-optical reflector system. , 2007, , .  |     | 4         |
| 78 | MEMS reconfigurable stacked antenna for WLAN applications. , 2008, , .   |     | 4         |
| 79 | Broadband reflector fed by integrated lens antenna with frequency constant directivity. , 2010, , .  |     | 4         |
| 80 | Design and analysis of a Ka-band coaxial-to-quad-ridged circular waveguide transition. , 2014, , .   |     | 4         |
| 81 | Wide-angle mechanical scanning Transmit-arrays for Satellite Ka-band user terminals. , 2018, , .   |     | 4         |
| 82 | Preliminary Characterization of Microwave Backscattering of Floating Plastic. , 2021, , .  |     | 4         |
| 83 | Comparison of Slot-based and Vivaldi Antennas for Breast Tumor Detection using Machine Learning and Microwave Imaging Algorithms. , 2021, , .  |     | 4         |
| 84 | Numerical Assessment of Microwave Imaging for Axillary Lymph Nodes Screening Using Anthropomorphic Phantom. , 2021, , .  |     | 4         |
| 85 | Study of Freezing and Defrosting Effects on Complex Permittivity of Biological Tissues. IEEE Antennas and Wireless Propagation Letters, 2021, 20, 2210-2214.                                     | 4.0 | 4         |
| 86 | Experimental Evaluation of Thin Bone Fracture Detection Using Microwave Imaging. , 2022, , .   |     | 4         |
| 87 | Multichannel soliton amplification in erbium-doped fiber amplifiers. Microwave and Optical Technology Letters, 1998, 19, 309-313.  | 1.4 | 3         |
| 88 | Double-shell axial-symmetric imaging lens antenna for space applications. , 0, , .   |     | 3         |
| 89 | Guest Editorial for the Special Issue on Antennas and Propagation at mm- and Sub mm-Waves. IEEE Transactions on Antennas and Propagation, 2013, 61, 1502-1507.                                   | 5.1 | 3         |
| 90 | Wideband and High-Selectivity Dual-Band Filter for Ka-Band Satellite Antennas. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 1627-1630.  | 4.0 | 3         |

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|-----|---|-----|-----------|
| 91  | Efficient Evaluation of Gradient Transmit-Arrays Through an Equivalent Dispersive Dielectric Description. IEEE Transactions on Antennas and Propagation, 2019, 67, 5997-6007.         | 5.1 | 3         |
| 92  | Development of a Transmission-Based Open-Ended Coaxial-Probe Suitable for Axillary Lymph Node Dielectric Measurements. , 2020, , .  |     | 3         |
| 93  | Evaluation of a Dielectric-Only Transmitarray for Generating Multi-Focusing Near-Field Spots Using a Cluster of Feeds in the Ka-Band. Sensors, 2021, 21, 422.                         | 3.8 | 3         |
| 94  | A study on the sensitivity of microwave imaging for detecting small-width bone fractures. , 2021, , .   |     | 3         |
| 95  | Systematic Analysis of Microwave Breast Imaging Detection of Different-Sized Malignant and Benign Tumors. , 2022, , .   |     | 3         |
| 96  | Numerical study of passive gain equalization with twin-core fiber coupler amplifiers for WDM systems. IEEE Journal of Quantum Electronics, 2001, 37, 1553-1561.                       | 1.9 | 2         |
| 97  | Low-cost mechanically steered millimeter-wave lens antenna system for indoor LANs. , 2010, , .  |     | 2         |
| 98  | Design of a passive tag for indoor localization. , 2012, , .  |     | 2         |
| 99  | UWB Real Time Localization platform for fast system performance evaluation. , 2013, , .   |     | 2         |
| 100 | Comparizon of 3D printed Plastic and micromachined Teflon Lenses for WiGig modules. , 2014, , .   |     | 2         |
| 101 | Low-cost 60 GHz 3D printed lens fed by a planar source with WR15 transition integrated on FR4 PCB. , 2017, , .  |     | 2         |
| 102 | Miniaturized implantable patch antenna for near-field communication at ISM band. , 2017, , .  |     | 2         |
| 103 | Transmit array as a viable 3D printing option for backhaul applications at V-band. , 2017, , .  |     | 2         |
| 104 | Low-Cost Wide-Band V-Band Patch Antenna on FR4 PCB. , 2018, , .   |     | 2         |
| 105 | Crossed exponentially tapered slot antenna for UWB applications. , 2008, , .  |     | 1         |
| 106 | Optimization of mechanically beam-steerable lens antenna profile for 60GHz wireless communications. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , . | 0.0 | 1         |
| 107 | Design of double material integrated scanning lens antennas. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .  | 0.0 | 1         |
| 108 | UWB crossed exponentially tapered slot antenna with WLAN band rejection. , 2009, , .  |     | 1         |

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|-----|--|----|-----------|
| 109 | UHF RFID cabinet. , 2011, , .  |    | 1         |
| 110 | Feasibility study of suitcase identification and imaging Using a UWB tag. , 2012, , .  |    | 1         |
| 111 | Low profile UWB antenna for Wireless Body Area Networks. , 2014, , .   |    | 1         |
| 112 | FSS design for dual-band and low profile Fabry-P&#x00E9;rot antenna at Ka-band. , 2014, , .  |    | 1         |
| 113 | RFID chip characterization through S-parameter measurements and gene expression programming. , 2014, , .   |    | 1         |
| 114 | A planar feed for SOTM Ka-band lens antennas. , 2015, , .  |    | 1         |
| 115 | Three-dimensional printed ABS plastic peanut-shaped lens with integrated ball grid array module for high-rate communications in Ka-band. IET Microwaves, Antennas and Propagation, 2017, 11, 2021-2026. <sup>1.4</sup> |    | 1         |
| 116 | Assessment of FETI DDM methodologies for the simulation of high gain Ka-band transmit arrays. , 2017, , .  |    | 1         |
| 117 | Wrist-Worn RFID Antenna Printed on Additive Manufactured Flexible Substrate. , 2019, , .   |    | 1         |
| 118 | Antenna Phase Center and Angular Dispersion Estimation Using Planar Acquisition Setup Applied to Microwave Breast Imaging. , 2020, , .   |    | 1         |
| 119 | Reducing Beam Aberrations of Mechanical Scanning Transmit-array Antennas. , 2020, , .  |    | 1         |
| 120 | Passive UHF RFID smart polling device. , 2010, , .   |    | 0         |
| 121 | Broadband superlensing using a metamaterial with an extreme index of refraction: Salient features, physical principles and analytical modeling. , 2010, , .  |    | 0         |
| 122 | Impact of a new wideband slot array on MIMO indoor system performance. , 2011, , .   |    | 0         |
| 123 | Design of a UWB stacked antenna for body area network applications. , 2014, , .  |    | 0         |
| 124 | Influence of body placement on low profile UWB antenna off-body ranging performance. , 2015, , .   |    | 0         |
| 125 | Low-profile wideband stick-on antenna for body-area communication. , 2016, , .   |    | 0         |
| 126 | Generic formulation for transmit-array dual-band unit-cell design. , 2017, , .   |    | 0         |

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|-----|---|----|-----------|
| 127 | Link budget study and realization of time-domain measurement setup for implantable antennas. , 2017, , .                          |    | 0         |
| 128 | Low-cost plastic lens fabricated in FDM 3D-printing technology targeting high data rate wireless links above 200 GHz. , 2017, , . |    | 0         |
| 129 | Phase-only Shaped Beam Transmit-Array. , 2018, , .  |    | 0         |
| 130 | Equivalent Dielectric Description of Transmit-arrays as an efficient and accurate method of analysis. , 2020, , .                 |    | 0         |
| 131 | Transmit-array antenna with aberration-free wide-angle scanning using mechanical in-plane movements. , 2021, , .                  |    | 0         |