

IEEE Journal of Microwaves Best Paper Award

*Recognizes, on an annual basis, the most significant contribution
in a paper published in the IEEE Journal of Microwaves.*

The 2023 IEEE Journal of Microwaves Best Paper Award is awarded to Tobias Chaloun, Luigi Boccia, Emilio Arnieri, Michael Fischer, Vaclav Valenta, Nelson Fonseca and Christian Waldschmidt for their paper entitled “Electronically Steerable Antennas for Future Heterogeneous Communication Networks: Review and Perspectives,” IEEE Journal of Microwaves, vol, 2, no. 4, pp 545-581, Oct. 2022.



Tobias Chaloun

Tobias Chaloun (Senior Member, IEEE) received the Dipl.-Ing. and Dr.-Ing. degrees (with Hons.) in electrical engineering from the University of Ulm, Ulm, Germany, in 2010 and 2016, respectively. From 2010 to 2016, he was a Research Assistant with the Institute of Microwave Engineering, University of Ulm. From 2017 to 2023, he held a position as a Senior Researcher and Lecturer at the Institute of Microwave Engineering, University of Ulm. Since 2023, he has joined Hensoldt Sensors GmbH, where he is currently a Technical Project Manager for research and technology projects. His research interests include radar and quantum sensing and technologies, antennas and antenna arrays, RF packaging and integration technologies, and analog and digital signal processing techniques. Dr. Chaloun is a member of the European Microwave Association (EuMA). He is a Founding Member of the IEEE MTT-29 Technical Committee on Microwave Aerospace Systems. He was the TPC Chair of the 2022 German Microwave Conference (GeMiC). He serves as a regular reviewer for several IEEE journals and conferences. Dr. Chaloun was the recipient of the Best Paper Award at the 2015 German Microwave Conference. In 2016, he was also the recipient of the 2014 Best Paper Award in the IET Microwaves, Antennas & Propagation.

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Luigi Boccia

Luigi Boccia was born in Lungro, Italy, in 1975. He received the degree in information technology engineering from the University of Calabria, Rende, Italy, in 2000, and the Ph.D. degree in electronics engineering from the University Mediterranea of Reggio Calabria, Reggio Calabria, Italy, in 2003. Since 2021 he has been an Associate Professor of electromagnetics at the Millimeter-wave Antennas and Integrated Circuits Laboratory (MAIC-LAB) of the University of Calabria. His current research interests include antennas for telecommunications, radar and Earth observation applications, monolithically integrated RF circuits for phased array applications and RF system integration technologies. He was a recipient of the 2022 Best paper Prize from the IEEE Journal of Microwaves. He serves as an associate editor of the “International Journal of Microwave and Wireless Technologies” (Cambridge University Press), of “IEEE Microwave and Wireless Components Letters (MWCL)” and of “IEEE Antennas and Wireless Propagation Letters”. He also was the co-Editor of the book entitled Space Antenna Handbook (Wiley, 2012).



Emilo Arnieri

Emilo Arnieri is an Associate Professor with the Department of Informatics, Modeling, Electronics, System Engineering, University of Calabria (Italy), where he participated in several national, European, and ESA projects. He has co-authored more than 100 articles. His research interests include circular polarizers, dual-band antennas, SAR and beam-scanning antennas. He is an Associate Editor for IEEE Antennas and Wireless Propagation Letters. He is the Co-Founder of the academic spinoff Antecnica. Prof. Arnieri was selected as a finalist for the Best Paper Award in Antenna Design at EuCap2019. He received the 2019 outstanding Associate Editor Awards IEEE Antennas and Wireless Propagation Letters.

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Michael Fischer

No photo or bio available at time of publication.



Vaclav Valenta

Vaclav Valenta received the dual Ph.D. degree in radio-engineering from ESIEE Paris, France, and Brno University of Technology, Brno, Czech Republic, in 2010. He has been with the European Space Agency since 2016.

He runs internal research and industrial research and development contracts in the field of RF equipment and technologies, encompassing radar, navigation, satcom, and science applications. He has been involved in the development of RF payloads for multiple space missions, such as ExoMars, ROSE-L, PACIS-3, TRITON-X, and IRIS2. He also oversees industrial ESA contracts on commercial Ku and Ka-band satcom developments, covering both space and ground segments. His research interests include power amplification, beamforming concepts, and frequency generation and timing in phased array systems, covering aspects of semiconductor technology, RFIC design, packaging, up to integration and testing.

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Nelson J.G. Fonseca

Nelson J.G. Fonseca (Senior Member, IEEE) received the M.Eng. degree from Ecole Nationale Supérieure d'Electrotechnique, Electronique, Informatique, Hydraulique et Telecommunications (ENSEEIH), Toulouse, France, in 2003, the M.Sc. degree from the Ecole Polytechnique de Montreal, Quebec, Canada, also in 2003, and the PhD degree from Institut National Polytechnique de Toulouse – Universite de Toulouse, France, in 2010, all in electrical engineering. He currently works as Innovation Manager for Anywaves, Toulouse, France, contributing to the development of their custom space-segment antennas portfolio. He is also the founding director of 3SPACE Innovation, Paris, France, a startup developing novel ground-segment and terrestrial wireless communication antenna systems. His research interests include multiple beam antennas for space missions, beamformer theory and design, ground terminal antennas and novel manufacturing techniques. He has authored or co-authored more than 300 papers in peer-reviewed journals and conferences, and has over 50 patents issued or pending.

Dr. Fonseca is currently serving as Associate Editor for the IEEE Transactions on Antennas and Propagation and for the IET Microwaves, Antennas and Propagation. He is also a Topic Editor for the IEEE Journal of Microwaves. He served as TPC co-chair at the 18th European Conference on Antennas and Propagation (EuCAP2024) and is serving as Vice-Chair of the 19th edition (EuCAP2025). He received several prizes and awards, including the Best Young Engineer Paper Award at the 29th ESA Workshop on Antennas in 2007, an ESA Teamwork Excellence Award in 2020, the Best Applied Technology Antenna Paper Award at EuCAP 2022 and the 2024 IEEE Journal of Microwaves Best Paper Award.

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Christian Waldschmidt

Christian Waldschmidt received the Dipl.-Ing. (M.S.E.E.) and the Dr.-Ing. (Ph.D.E.E.) degrees from the University Karlsruhe (TH), Karlsruhe, Germany, in 2001 and 2004, respectively. Since 2004 he has been with Robert Bosch GmbH, in the business units Corporate Research and Chassis Systems. He was heading different research and development teams in microwave engineering, RF-sensing, and automotive radar.

In 2013 Christian Waldschmidt returned to academia. He was appointed as the Director of the Institute of Microwave Engineering at University Ulm, Germany, as full professor. The research topics focus on radar and RF-sensing, mm-wave and submillimeter-wave engineering, antennas and antenna arrays, RF and array signal processing. He authored or coauthored over 300 scientific publications and more than 25 patents.