

# Microwave Prize

*Recognizes, on an annual basis, the most significant contribution by a published paper to the field of interest of the MTT-S. The Microwave Prize is the Society's oldest Award.*

The 2023 Microwave Prize is awarded to João L. Gomes, Luís C. Nunes, Filipe M. Barradas, José C. Pedro, Adam Cooman, Aryan E. F. de Jong, Rob M. Heeres for their paper entitled "The Impact of Long-Term Memory Effects on the Linearization of GaN HEMT-Based Power Amplifiers" in IEEE Transactions of Microwave Theory and Techniques, vol 70, no. 2, pp 1377-1390, Feb 2022.



## João Lucas Lessa Gomes

João Lucas Lessa Gomes was born in Matosinhos, Portugal, in 1994. He received the M.Sc. degree in physics engineering in 2017, and the Ph.D. degree in electrical engineering from the Universidade de Aveiro, Portugal. Since 2022, he has been with the Infineon Technologies AT, working on the development of reliable HV GaN IC technology in the field of power electronics. His current research interests include active device modeling and semiconductor physics modeling. Dr. Gomes was a recipient of the 2020 MTT-S Graduate Fellowship from the IEEE Microwave Theory and Techniques Society.



## Luis Cótimos Nunes

Luis Cótimos Nunes (S 13, M 17) was born in Portugal, in 1986. He received his M.Sc and Ph.D. degrees in Electrical Engineering from the Universidade de Aveiro, Portugal, in 2010 and 2015, respectively. From 2016 to 2017, he was an RF design engineer at Huawei Technologies, Sweden. He is currently a Researcher with the Institute of Telecommunications – Aveiro, Portugal. His main research interests include active device modeling, nonlinear distortion analysis, and the design of microwave circuits, especially high-efficiency and linear power amplifiers. Luis Nunes received the 2022 EuMIC Best Paper Award.

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## Filipe Miguel Esturrenho Barradas

Filipe Miguel Esturrenho Barradas was born in Évora, Portugal, in July 1989. He received the M.Sc. degree in electronics and telecommunications engineering and the Ph.D. degree in electrical engineering from the Universidade de Aveiro, Aveiro, Portugal, in 2012 and 2017, respectively.

He is currently a Research Assistant with the Instituto de Telecomunicações, Universidade de Aveiro. His main interests lie in digital predistortion and behavioral modeling of radio frequency power amplifiers (RF PAs), as well as signal processing with applications on telecommunications. He is also interested in the design and analysis of nonlinear microwave circuits and devices.



## José Carlos Esteves Duarte Pedro

José Carlos Esteves Duarte Pedro (Fellow, IEEE) received the Diploma, Ph.D, and Habilitation degrees in electronics and telecommunications engineering from the University of Aveiro, Aveiro, Portugal, in 1985, 1993, and 2002, respectively. He is currently a full-time professor at the same university, and the President of Telecommunications. He has authored two books and authored or co-authored more than 200 articles in international journals and symposia. His current research interests include active device modeling and the analysis and design of various nonlinear microwave circuits. Dr. Pedro was a recipient of various prizes, including the 1993 Marconi Young Scientist Award, the 2000 IEEE Measurement Prize, the 2015 EuMC Best Paper Microwave Prize, and the Microwave Distinguished Educator Award. He has served as a reviewer for the scientific community and an editor for several conferences and journals,

namely, the IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, for which he was Editor-in-Chief.

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## Adam Cooman

Adam Cooman, a 2012 graduate of Vrije Universiteit Brussels (VUB) in Belgium, earned his PhD in 2016 from VUB's ELEC department, focusing on distortion contribution analysis. Following this, he conducted research on stability analysis of microwave circuits at INRIA's FACTAS department in France. In 2018, he joined Ampleon in the Netherlands as a research engineer, specializing in digital predistortion. Since 2021, Adam has been engaged in research on wireline Analog to Digital Convertors at IMEC in Belgium.



## Aryan de Jong

Aryan de Jong, worked with GaN since the start of his M.Sc. in solid state chemistry. Later he also obtained a Ph.D. degree using interface X-ray physics to determine the molecular arrangement of growing GaN from a melt in a collaboration between the Radboud University (NL) and the European Synchrotron Radiation Facility (FR).

Aryan now works at Ampleon determining optimization routes for GaN transistors by combining thermal simulations and advanced DC and RF measurements.

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## Rob Heeres

Rob Heeres received the MSc degree in Applied Physics from the Rijks Universiteit Groningen, Groningen, The Netherlands, in 1996. From 1996 to 1998 he was a Physical Research Assistant with Space Research Organization Netherlands (SRON) working on Terahertz mixers. From 1998 to 2015 he was with Philips Semiconductors and NXP Semiconductors respectively, as RF device and design engineer, working on a.o. bipolar and LDMOS technologies. Since 2015 he is with Ampleon Netherlands. His current interests include GaN HEMT technology, and design of linear and high-efficient RF power amplifiers.