

Guest Editorial

THIS TRANSACTIONS' Mini-Special Issue contains six expanded papers from the 2018 International Workshop on Integrated Nonlinear Microwave and Millimetre-wave Circuits (INMMiC), Brive-La-Gaillarde, France, July 5–6, 2018. The INMMiC is a forum for promoting, discussing, and spreading ideas in the field of nonlinear microwave and millimeter-wave circuits and systems. The INMMiC Workshop was originally launched in Duisburg, Germany, in 1990, and achieved its present form in Rome, Italy, in 2004. Subsequently, the INMMiC has been held at different venues around Europe, namely, Aveiro, Portugal, in 2006; Málaga, Spain, in 2008; Göteborg, Sweden, in 2010; Vienna, Austria, in 2011; Dublin, Ireland, in 2012; Leuven, Belgium, in 2014; Taormina, Italy, in 2015; and Graz, Austria in 2017. The INMMiC 2018 was held in Brive-La-Gaillarde, France, on July 5–6, 2018.

With over 84 attendees, the Technical Program of the INMMiC 2018 included the following:

- 1) two outstanding keynote presentations by Dr. S. Mons and Prof. J.-C. Nallatamby;
- 2) four invited talks given by world-leading distinguished speakers: Dr. G. Baker, Dr. S. Piotrowicz, Prof. N. Dasgupta, and Prof. R. Quéré;
- 3) three industrial talks given by recognized companies: Dr. T. Gasseling (Amcad Engineering), R. Fernandes (Ansys), and Mr. E. Malcom (National Instruments);
- 4) 41 high-quality regular papers (out of 54 submissions from 17 countries) presented in both oral (21) and poster (20) formats.

The INMMiC Steering Committee decided to honor Prof. R. Quéré for his prolific career and his well-earned retirement. He has concluded the conference with an amazing talk around the new challenges in nonlinear RF signal processing.

The INMMiC 2018 hosted the Nonlinear Vector Network Analysis (NVNA) Users' Forum on the first day of the conference with two talks from T. Reveyrand (XLIM) and T. Gasseling (Amcad Engineering). This informal discussion

group is devoted to sharing information and issues related to instrumentation based on vector large-signal network analysis for nonlinear microwave circuits and systems.

The authors of the presented papers were invited to submit an expanded version of their papers for consideration in this Mini-Special Issue. All submissions went through the same review process as regular submissions to this TRANSACTIONS. A total of ten papers were submitted, and after rigorous reviews, six contributions were accepted for publication. The published papers present new technical contents beyond the conference papers, derived in part from the interesting discussions generated at the INMMiC 2018.

As the Guest Editors and the Technical Program Committee (TPC) Chairs of the 2018 INMMiC, we would like to express our sincere gratitude to Prof. J. C. Pedro and Prof. L. Perregini (Co-Editors-in-Chief of this TRANSACTIONS) for providing the INMMiC the opportunity to publish this Mini-Special Issue. Furthermore, our thanks go to all the reviewers for devoting their valuable time and expertise to review the submitted manuscripts. On behalf of the conference Steering Committee, we would like to thank Dr. M. E. Gadringer (General Chair of the 2017 INMMiC), all the authors of the 2018 INMMiC, and in particular, the authors of the six contributions published in this Mini-Special Issue.

Finally, on behalf of Dr. R. Quaglia (General Chair of the 2020 INMMiC), we look forward to seeing you in Cardiff, U.K.

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Sebastien Mons received the Ph.D. degree in electronics from the University of Limoges, Limoges, France, in 1999.

He was with the Microwave Laboratory, CNES, Toulouse, France, from 1999 to 2001. Since 2001, he has been a Researcher with the French CNRS, XLIM Institute, University of Limoges. His current research interests include the modeling and simulation of RF frontends at the system level and nonlinear analysis of microwaves circuits.

Dr. Mons serves as a Technical Program Committee (TPC) member of the IEEE INMMiC Conference and was the TPC Chair of the IEEE INMMiC in 2018.



Tibault Reveyrand (M'07) received the Ph.D. degree from the University of Limoges, Limoges, France, in 2002.

From 2002 to 2004, he was a Post-Doctoral Scientist with CNES (French Space Agency), Toulouse, France. Since 2005, he has been a CNRS Engineer with the XLIM Institute, University of Limoges. From 2013 to 2016, he was a Visiting Researcher with the University of Colorado, Boulder, CO, USA. His current research interests include the characterization and modeling of RF and microwave nonlinear components and devices.

Dr. Reveyrand was a Technical Program Review Committee (TPRC) member of IEEE MTT-S IMS. He currently serves a member of the IEEE MTT-11 "Microwave Measurements" Technical Committee. He has been a Reviewer for many IEEE journals. He was a recipient of the 2002 European GaAs Best Paper Award.