

Editors' Overview

AS IN PREVIOUS years, this TRANSACTIONS' Special Issue is the traditional outlet for the publication of expanded versions of technical papers presented during the "Microwave Week" events, featuring the annual IEEE Microwave Theory and Techniques Society (IEEE MTT-S) International Microwave Symposium (IMS), as well as the Radio Frequency Integrated Circuits (RFIC) Symposium and Automatic Radio Frequency Techniques Group (ARFTG) Conference.

IEEE MTT-S IMS2002 was held in Seattle, WA, 2–7 June 2002, during which 491 technical papers were presented in podium and interactive forum settings. From these, 168 papers (34%) were submitted in expanded versions to this TRANSACTIONS, with 50 papers (30% of the submissions) accepted for publication. This low acceptance ratio was driven by the budgetary constraints placed by the total number of papers allocated to this Special Issue. As in previous years, the guest editors employed a fully electronic process for submission and an e-mail-based review of all manuscripts.

This TRANSACTIONS' Special Issue contains the report from the General Chair of the IEEE MTT-S IMS, as well as the summary from the IEEE MTT-S Technical Program Committee. The Awards form a major means by which the IEEE MTT-S can recognize individual achievements. The awards presented during the IEEE MTT-S IMS2002 are recognized in this Special Issue. The section headings used in this Special Issues's Table of Contents are taken from the IEEE MTT-S IMS Technical Program.

A glance at this Special Issues's Table of Contents indicates that the emphasis of contributions has been on Computer-Aided Design (12) and Passive Microwave Components (11), with fewer papers in the sections on Active Microwave Components (8), Electromagnetic Field Analysis (7), Applications (7), Millimeter-Wave Technologies (3) and Packaging, Integration, and Test (2).

Guest editors Andreas Weisshaar and Wolfgang J. R. Hoefer are especially indebted to Guest Editor George Heiter for acting

as the editorial team's *Eminence Grise*. The rich experience and extensive know-how he had gained as a guest editor for two previous Symposium Issues of this TRANSACTIONS have been invaluable to the editorial team. The guest editors are also grateful to Ms. Kathleen Runo, who again served as this TRANSACTIONS' Special Issue Administrator. She processed a staggering amount of e-mail messages, reviews, requests, data, and final submission materials with outstanding competence, reliability, and dedication to detail. Finally, special thanks go to Jeff Pond for again managing the website database this year. The harmonious and productive working relationship between all members of the editorial team has made the task of editing this TRANSACTIONS' Special Issue a highly rewarding experience indeed.

The large volume of paper submissions presented a particularly challenging task to the available reviewer pool, the majority of which was drawn from the IEEE MTT-S Technical Program Committee of IMS2002. With very special gratitude, the guest editors acknowledge the conscientious and timely response of each of the reviewers listed below. It is through their efforts that the IEEE MTT-S is able to continue to maintain the quality and high standards of this TRANSACTIONS.

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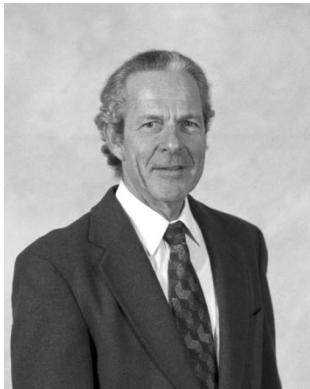
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Since 1991, he has been on the faculty of the Department of Electrical and Computer Engineering, Oregon State University, where he is currently an Associate Professor. He has authored or coauthored over 100 technical papers. He also coauthored *Transmission Lines and Wave Propagation, Fourth Edition* (Boca Raton, FL: CRC Press, 2000). He holds one U.S. patent. His current areas of research include computer-aided design of passive RF and microwave circuits and components, embedded passives, interconnects and electronic packaging, and signal integrity.

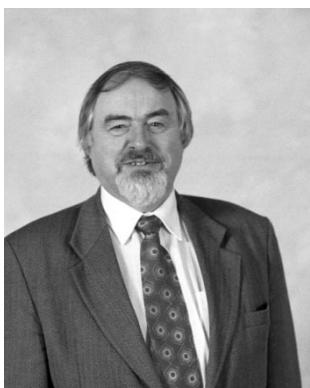
Dr. Weisshaar is a member of the Editorial Board of the IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES and the Technical Program Committee of the IEEE MTT-S IMS. He served as co-editor of the IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES Symposium Issue (December 2002). He serves on the IEEE MTT-S Technical Committees on Computer-Aided Design (MTT-1) and Microwave and Millimeter Wave Packaging (MTT-12), and the Technical Committee on Electrical Design, Modeling, and Simulation (TC-12) of the IEEE Components, Packaging, and Manufacturing Technology Society.



George L. Heiter (M'65–SM'83–LS'01) received the Vordiplom degree from the University of Darmstadt, Darmstadt, Germany, in 1957, the Dipl. Ing. degree from the University of Karlsruhe, Karlsruhe, Germany, in 1959, and the Ph.D. degree in electrical engineering from the W. W. Hansen Laboratories of Applied Physics, Stanford University, Stanford, CA, in 1964.

In 1963, he joined Bell Telephone Laboratories, where he was involved with high-power ferrite materials and phase shifters, acoustic delay-line memories, optical memories, long-distance terrestrial microwave communication systems, and hybrid fiber-coaxial (HFC) communication systems. In 1996, he joined Analog Devices, Wilmington, MA, where he has been involved in the development of multifunction chips for HFC and digital audio broadcasting (DAB) systems, as well as in digital subscriber line (DSL) chip-set applications. He retired from Analog Devices in December of 2001, after which time he formed Heiter Microwave Consulting, Westford, MA, a company that specializes in the design of communication systems. He has authored or coauthored numerous publications and holds patents in most of these areas.

Dr. Heiter is a member of the IEEE Electron Devices Society, the American Physical Society, and Sigma Xi. Within the IEEE Microwave Theory and Techniques Society (IEEE MTT-S), he has been involved with the IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES as a member of the Editorial Review Board and as a guest editor for special issues of this TRANSACTIONS, including the Symposium Issues (December 2000–2002). He has also contributed to the introduction of the electronic submission and review process. He has been active in the IEEE MTT-S International Microwave Symposia (IMS) as workshop and session organizer and chair, as well as a member of the Technical Program Committees. On separate Boston IEEE MTT-S IMS Steering Committees, he has served as the Digest and TRANSACTIONS editor, as well as publications chair. He was the organizer of the WARC92 Workshop and Technical Program co-chair for the Symposia on Technologies for Wireless Applications. He has fostered interactions on Technical Committees, co-chaired the Technical Committee on Microwave Systems (MTT-16), and is a member of MTT-9 and MTT-20.



Wolfgang J. R. Hoefer (M'71–SM'78–F'91) received the Dipl.-Ing. degree in electrical engineering from the Technische Hochschule Aachen, Aachen, Germany, in 1965, and the D. Ing. degree from the University of Grenoble, Grenoble, France, in 1968.

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Research Centre, Ottawa, ON, Canada, the University of Rome "Tor Vergata," Rome, Italy, the University of Nice-Sophia Antipolis, France, the Technical University of Munich, Munich, Germany, the Ferdinand Braun Institute for High Frequencies, Berlin, Germany, and the Gerhard Mercator University, Duisburg, Germany. He was an Invited Lansdowne Lecturer with the University of Victoria, in 1989. His research interests include numerical techniques for modeling electromagnetic fields and waves, computer-aided design of microwave and millimeter-wave circuits, microwave measurement techniques, and engineering education. He is the cofounder and Managing Editor of the *International Journal of Numerical Modeling*. He serves on the Editorial Boards of the Proceedings of the *Institution of Electrical Engineers*, the *International Journal of Microwave and Millimeter-Wave Computer Aided Engineering*, *Electromagnetics*, and the *Microwave and Optical Technology Letters*.

Dr. Hoefer is a Fellow of the British Columbia Advanced Systems Institute (BC-ASI). He serves regularly on the Technical Program Committees of the IEEE MTT-S and IEEE Antennas and Propagation (IEEE AP-S) Symposia. He is the chair of the IEEE MTT-S Technical Committee on Field Theory (MTT-15). He was an associate editor for the IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES (1998–2000). He was a guest editor of the Symposium Issue of the IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES (December 2002). He serves on the Editorial Board of the IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES. He was the recipient of the 1990 Peter B. Johns Prize for the best paper published in the *International Journal of Numerical Modeling*.