The Microwave Application Award recognizes an individual or team for outstanding application of microwave theory and techniques. This year's recipient is John W. Bandler, whose citation reads “For implementation of optimization technology, design with tolerance and yield-driven design to microwave devices, circuits and systems.”

JOHN W. BANDLER was born in Jerusalem, on November 9, 1941. He lived in Cyprus from 1945 to 1956, and in London, England, from 1956 to 1967. In 1967 he moved to Canada, where he lives with his wife Beth Budd. He has two daughters, Lydia and Zoe.

He studied at Imperial College and received the B.Sc.(Eng.), Ph.D. and D.Sc.(Eng.) degrees from the University of London in 1963, 1967 and 1976, respectively. He joined Mullard Research Laboratories in 1966. From 1967 to 1969 he was a Postdoctoral Fellow at the University of Manitoba. He joined McMaster University, Hamilton, Canada, in 1969. He has served as department chairman and faculty dean. He is currently Professor Emeritus.


John's contributions, through EEsof (Touchstone and Libra), Compact Software (SuperCompact and Microwave Harmonics), OSA and subsequently premier HP, Agilent and Ansoft products, set the standard for optimization technology in the microwave industry. Yield-driven design and design with tolerances is taken for granted following his contributions to SuperCompact in the late 80’s. EEsof was forced to follow this initiative. EM optimization became a reality through his OSA/Empipe technology initiated in 1992. Ansoft followed the lead when HP acquired OSA.

John was Associate Editor of the IEEE Transactions on Microwave Theory and Techniques (1969-1974), member of the editorial board and guest editor of several special issues (1974, 1992, 1997, 2004). He served on the editorial boards or as guest editor of other journals, most recently Optimization and Engineering Special Issue on Surrogate Modelling and Space Mapping for Engineering Optimization (2001). He was a Chair of the MTT-1 Technical Committee on Computer-Aided Design.


Al Wexler and Bill Getsinger encouraged John’s initial work. Witold Kellermann and Shahrokh Dajavoud were early OSA collaborators. Bob Pucel and Jim Rautio helped propel OSA's advance. Steve Chen, Radek Biernacki and Q.J. Zhang seminally contributed to OSA's impact. John's twenty-five years of collaboration with Kaj Madsen continues.


In 1977 John was invited and attended a dinner and a reception in Ottawa attended by Her Majesty the Queen and His Royal Highness the Duke of Edinburgh. The occasion was the Queen's Silver Jubilee and a tribute to young Canadians who had achieved excellence in the Arts and Sciences.

In 1995 he began painting, principally in acrylic, inspired by abstract, expressionist and surrealist works. He is currently completing the first draft of his first novel, set in Cyprus during the island's violent final years as a British Crown colony.