Editorial

THIS YEAR the Microwave Theory and Techniques Society of the IEEE is organizing several activities marking the Centennial of the historic experiments of Heinrich Hertz which proved the validity of Maxwell's equations. Maxwell's theory appeared in 1864, but experimental proof eluded the best physicists and engineers of the time for over 20 years until Hertz's series of experiments, using remarkably modern microwave techniques, proved the existence of such key Maxwellian concepts as the displacement current in dielectrics.

The Science Museum of London has graciously consented to loan an exhibit of replicas of Hertz's apparatus for display at the International Microwave Symposium in New York this month. The exhibits have been specially refurbished for the occasion, and a comprehensive catalog has been prepared. Following the Symposium, the exhibition will be on display at the MIT Museum, Cambridge, MA, and possibly elsewhere, before returning to London.

The exhibition, and other activities of the Hertz Centennial, have been organized by a subcommittee of the MTT-S ADCOM under the capable chairmanship of Dr. John Bryant, who presents an invited paper in this Hertz Centennial Issue based on the subject of his 1986/87 term as an MTT Society Distinguished Microwave Lecturer. In addition, Dr. Bryant has organized a special session at our Symposium in New York in which invited papers relating the life, career, background, and legacy of Hertz's work are to be presented by several of our most distinguished scholars and historians. A selection of these papers appear in this Special Issue, and will reward the reader with insight into the genius of Hertz and an appreciation of a brilliant but sadly short career.

RALPH LEVY
Editor

Ralph Levy (SM'64–F'73) received the B.A. degree in physics from Cambridge University in 1953, the M.A. degree in 1957, and the Ph.D. degree in applied science from London University in 1966.

From 1953 to 1959 he was with GEC Stanmore, England, where he worked on microwave components and systems. In 1959 he joined Mullard Research Laboratories, Redhill, and developed a widely used technique for accurate instantaneous frequency and/or bearing measurement using several microwave discriminators in parallel, known as digital IFM. This work in ECM included development of very broad band components such as decade bandwidth directional couplers, and broad-band matching theory applied to amplifiers. From 1964 to 1967 he was a member of the faculty at Leeds University, and carried out research in network synthesis, including realizations of distributed elliptic function filters and branch guide and multiaperture directional couplers. From 1967 to 1984 he was Vice President of Research at Microwave Development Laboratories, Inc., Natick, MA, and developed design techniques for very broad band mixed lumped and distributed circuits, and synthesis of a variety of microwave components. Since 1984 he has been with KW Microwave, San Diego, CA, as Vice President of Engineering.

Dr. Levy has been very active within the IEEE, and is currently Editor of the IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES. He is also a member of the Administrative Committee of the IEEE Microwave Theory and Techniques Society, and a member of the IEE (London).