Contributors

Charles K. Birdsall (S'47 – A'51 – M'56 – SM'59–F'62) was born on November 19, 1925, in New York, N. Y. He received the B.S.E. and M.S.E. degrees in electrical engineering from the University of Michigan, Ann Arbor, in 1946 and 1948, respectively, and the Ph.D. degree from Stanford University, Stanford, Calif., in 1951.

He worked in microwave tube research from 1951 to 1955 at Hughes Research and Development Laboratories, Culver City, Calif., and from 1955 to 1959 as Group Leader of the electron physics group at General Electric Microwave Laboratory, Palo Alto, Calif. This work has resulted in 27 patents. In 1959 he joined the Electrical Engineering Department at the University of California in Berkeley, where he is now Professor and engaged in research in plasmas.

Professor Birdsall is a member of Tau Beta Pi, Phi Kappa Phi, Sigma Xi, the American Physical Society and the American Association for Advancement of Science.

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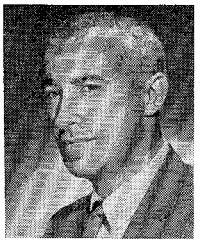

Frank A. Brand (M'58–SM'62) was born in Brooklyn, N. Y. on June 28, 1924. He attended Hofstra College, Hempstead, N. Y. from 1946 to 1948 and the Polytechnic Institute of Brooklyn, receiving the B.S. and M.S. degrees in physics in 1950 and 1958, respectively.

Mr. Brand joined the U. S. Army Signal Research and Development Laboratory, Fort Monmouth, N. J. in 1950 as a Research Physicist where he has since been engaged in research and development activities concerned with electron devices, semiconductor physics and quantum electronics. He is presently Chief of the Microwave and Quantum Electronics Branch, responsible for most of the research and development activities in solid state microwave devices and circuits, microwave and optical masers, and atomic frequency standards, under the Electronics Command. He is also a part-time instructor in electronic engineering at Monmouth College, West Long Branch, N. J.

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J. Robert Christian (M'59) was born in New Brunswick, N. J. on July 25, 1933. He received the B.S. degree in electrical engineering from Rutgers University, New Brunswick, N. J. in 1955. He is continuing his advanced studies at Rutgers.

From 1955 to the present, Mr. Christian has been employed by the U. S. Army Electronics Research and Development Laboratory, Fort Monmouth, N. J., where he has been engaged in research work primarily in investigations of new methods for guiding millimeter and optical waves.

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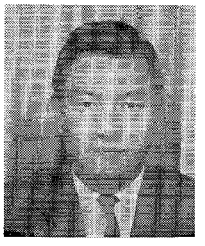

Kyohei Fujimoto (SM'62) was born in Kure, Japan, on December 14, 1929. He received the B.S.E.E. degree in 1953 from the Tokyo Institute of Technology, Japan.

After graduation he joined the Matsushita Communication Industrial Company where he engaged in the development of telecommunication receivers. He was also in charge of the development of telemeter and telecontrol systems. During the summer of 1961 he studied space communication at the University of Tokyo. In September, 1961, he began his present association with the Antenna Laboratory, Department of Electrical Engineering, the Ohio State University, Columbus, as a visiting Research Associate, being granted a leave of absence from the Matsushita Communication Industrial Company, Yokohama, Japan. His research has included work on radiometers and on integrated antenna systems.

Mr. Fujimoto is a member of the Institute of Electrical Communication Engineers of Japan and Sigma Xi.

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Georg Goubau (A'49 – SM'56 – F'57) was born in Munich, Germany on November 29, 1906. He received his M.A. in physics in 1931, and his Ph.D. in 1932, both from the Institute of Technology, Munich, Germany.

From 1931 to 1939 he was engaged in research and teaching at the Institute of Technology, Munich. In 1939 he was appointed Professor and Director of the Department of Applied Physics of the University of Jena, now in East Germany. Since 1947 he has been with the U. S. Army Electronics Research and Development Laboratory, Fort Monmouth, N. J. His early contributions were in the field of ionospheric research. Later his major interest turned to microwave theory and techniques. He coauthored and edited a book on electromagnetic waveguides and cavities which has been translated into English.

Dr. Goubau received the Harry Diamond Memorial Award of the IRE for his basic contribution to the theory of surface waves and the invention of the surface wave transmission line in 1957. He is a member of Sigma Xi and a member of US Commision VI of URSI.

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Haim Haskal (S'60) was born in Bucharest, Rumania on December 15, 1929. He received the B.S.E.E. degree from the Israel Institute of Technology in Haifa, Israel in 1953. He came to the United States in 1959 for graduate studies and received the M.S.E.E.

degree in 1961 from Case Institute of Technology, Cleveland, Ohio.

He served in the Israeli Signal Corps from 1954 to 1956 as a Technical Officer and from 1956 to 1959 as a Development Engineer mainly engaged in design of pulse and digital circuitry. At the present he is completing his Ph.D. dissertation in the area of electromagnetic waves in periodic structures, at Case Institute of Technology.

Mr. Haskal is an associate member of Sigma Xi.

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Leonard Hatkin (A'51–M'56) was born in New York, N. Y. on March 22, 1920. He received the B.S. degree in physics from the City College of New York, N. Y. and the M.S. and Ph.D. degrees in electrical engineering from Rutgers University, New Brunswick, N. J., in 1950 and 1960, respectively.

With the exception of a tour of active duty with the New Developments Division of the War Department Special Staff during World War II, he has served continuously with the U. S. Army Electronics Research and Development Laboratory, Fort Monmouth, N. J., since 1942. There he has been employed in various capacities in the fields of radiating systems, radar and microwaves. Currently he is Chief of the Advanced Development Branch of the Radar Division.

Dr. Hatkin is a member of Phi Beta Kappa, Sigma Xi, and American Association for the Advancement of Science.

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Cordell C. Hoffins (S'63) was born on February 12, 1939 in Sheboygan, Wisconsin. He received his B.E.E. degree in 1961, and his M.S.E.E. degree in 1964, both from Marquette University, Milwaukee, Wisc.

From 1962 to 1963, he was engaged in microwave tunnel diode application work at Marquette University under a Frederick Gardner Cottrell grant to the University. Since February, 1963, he has been employed by the AC Spark Plug Division of the General Motors Corporation, Milwaukee, as an environmental test engineer in the areas of vibration analysis and radio frequency interference.

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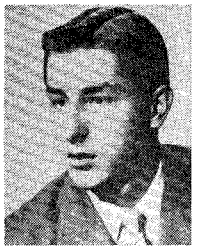
Dale A. Holmes was born in Biwabik, Minnesota, on December 31, 1937. He received the B.S. degree, with Highest Distinction, from Purdue University, Lafayette, Ind. in June, 1960, and the M.S. degree from Carnegie Institute of Technology, Pittsburgh, Pa. in June, 1961, both in electrical engineering. Currently, as a Ph.D. candidate in the Electrical Engineering Department at Carnegie Institute of Technology, he is studying semiconductor injection lasers.



During the summer of 1962, Mr. Holmes was associated with the U. S. Army Electronics Research and Development Laboratory, Fort Monmouth, New Jersey, where he studied electromagnetic wave propagation in negative conductivity media. In the summer of 1963, he did development work on pulsed laser systems for the Westinghouse Research and Development Center, Pittsburgh, Pa.

Mr. Holmes is a member of Phi Eta Sigma, Eta Kappa Nu, Tau Beta Pi, and Sigma Xi.

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Koryu Ishii (M'55), for photograph and biography, see p. 299 of the July, 1962, issue of these TRANSACTIONS.

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Harold Jacobs (SM'59) was born in Port Chester, N. Y., on November 21, 1917. He received the B.A. degree from the Johns Hopkins University, Baltimore, Md., in 1938, and the M.A. and Ph.D. degrees from New York University, N. Y., in 1942 and 1945, respectively.

He was employed as a Physicist at RCA Corporation, Lancaster, Pa., from 1942 to 1945, and by the Sylvania Electric Products, Kew Gardens, N. Y., from 1945 to 1949. In 1949 he joined the U. S. Army Electronics Research and Development Laboratory, Fort Monmouth, N. J., as Chief of the Tube Techniques Section, where he performed research pertaining to electron emission, high vacua, gas discharges, and semiconductor phenomena. In 1955, he was appointed Chief of the Solid-State Devices Branch in the same organization and is presently Deputy Director of the Solid State and Frequency Control Division, where he is engaged in laser research activities. He has also been an Instructor in Electrical Engineering at the Polytechnic Institute of Brooklyn, N. Y. At present he is Chairman of the Electronic Engineering Department of Monmouth College, West Long Branch, N. J.

Dr. Jacobs is a member of the American Physical Society and the American Society for Engineering Education.

Roderic B. Larrick (A'64) was born in San Francisco, Calif. on May 5, 1939. He received the A.A. degree in electronic technology from City College of San Francisco in 1961 and is now working towards the B.S.E.E. degree.

Since 1962 he has worked at the Electromagnetic Techniques Laboratory at Stanford Research Institute in Menlo Park, Calif. His work there has been concerned with the techniques of measuring and suppressing spurious energy from high power microwave transmitters.

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Paul J. Meier (S'55–M'59) was born in New York, N. Y. on April 10, 1936. He received the B.E.E. degree in 1958 from Manhattan College, New York, N. Y. and did graduate work at New York University.

Prior to graduation, he held engineering positions at the Navy's Bureau of Aeronautics, Washington, D. C. and the American Bosch Arma Corporation, Garden City, N. Y. In 1958 he joined the staff of Wheeler Laboratories, Inc., Great Neck, N. Y., where he worked on the design of missile-borne microwave components. More recently, he has studied the simulation of phased-array antennas in waveguide.

Mr. Meier is a member of Eta Kappa Nu.

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Kazuhiro Miyauchi, for a photograph and biography please see page 95 of the January, 1963, issue of these Transactions.

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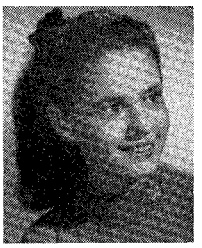

Suzanne Palócz (S'57–M'59) was born in Budapest, Hungary. She studied at the University of Technical Sciences, Budapest, Hungary from 1954 to 1956. She received the B.S. degree in electrical engineering from Columbia, New York, N. Y. in 1958 and the M.S. degree in electrical engineering from the Polytechnic Institute of Brooklyn, New York, N. Y. in 1963. She was awarded scholarships at the Technical University at Budapest and at Columbia University. Presently she is a graduate student at the Polytechnic Institute of Brooklyn where she is studying for the doctorate.

In 1959 she was a Research Assistant in the Physics Department of New York University, New York, N. Y., where she

investigated photoconductive properties of the eye. Her research has been in the field of electromagnetic wave propagation.

Mrs. Palócz was a Zonta International Fellow in 1962–1963 and a recipient of the Amelia Earhart Award.

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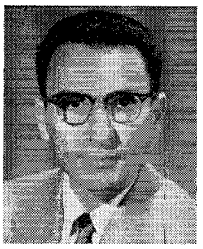

Bernard M. Schiffman (S'51–A'53-M'57) was born in New York, N. Y., on December 5, 1915. He received the B.S. degree in electrical engineering from State University of Iowa, Iowa City, in 1952, and the M.S. degree in electrical engineering from Stanford University, Stanford, Calif., in 1959.

In 1952, he was employed at the Hazeltine Electronics Corp., Little Neck, N. Y. From 1954 to 1956, he worked at Sylvania's Electronic Defense Laboratory, Mountain View, Calif., where he designed a high-power countermeasures transmitter and did microwave component research. In 1956, he joined the Microwave Group of Stanford Research Institute, Menlo Park, Calif., where he worked on 90° phase-shifters and developed the first waffle-iron filter. From 1959–1961, he worked at Varian Associates and there invented and received patents for new forms of the orthogonal mode mixer. In 1962, he returned to the Electromagnetic Techniques Laboratory of SRI where he is engaged in microwave component research.

Mr. Schiffman is a member of the Scientific Research Society of America and Eta Kappa Nu.

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Theodor Tamir (A'54–M'58–SM'62) was born on September 17, 1927 in Bucharest, Rumania. He received the B.S., Dipl. Ingenieur, and M.S. degrees in electrical engineering from the Technion, Israel Institute of Technology, Haifa, Israel, in 1953, 1954, and 1958, respectively, and the Ph.D. degree in electrophysics from the Polytechnic Institute of Brooklyn, New York, N. Y. in 1962.

From 1953 to 1956, he was employed as a Research Engineer by the Scientific Department of the Ministry of Defense, Israel where he worked on research and development of microwave systems and components. From 1956 to 1958, he was associated with the research and teaching staff of the Technion, Israel Institute of Technology, where he worked in the microwave field and also gave courses in high-frequency techniques.

In 1958, he joined the Microwave Research Institute of the Polytechnic Institute of Brooklyn where he is presently a Research Assistant Professor in the Electrophysics Department; during this time, he has been engaged in analytical studies of wave propagation, radiation and diffraction in ionized media, periodic structures and other related topics.

Dr. Tamir is an Associate Member of the Institution of Electrical Engineers (London) and a member of Sigma Xi.

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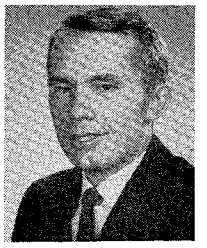
Harold A. Wheeler (A'27 – M'28 – F'35) was born in St. Paul, Minn., on May 10, 1903. He received the B.S. degree in physics in 1925 from George Washington University, Washington, D. C., and continued post-graduate studies at the Johns Hopkins University, Baltimore, Md., until 1928.

He was employed by the Hazeltine Corporation, Little Neck, N. Y., from 1924 to 1946, advancing to Vice-President and Chief Consulting Engineer in 1900. In 1959 he resumed some activity with this company as a Vice-President and a Director. Since 1947, his principal occupation has been as President of Wheeler Laboratories, Inc., Great Neck, N. Y., now a subsidiary of Hazeltine Corporation. In this capacity, he is directing their Great Neck and Smithtown laboratories, specializing in microwaves and antennas. Also he is now serving the U. S. Government as a member of the Defense Science Board.

Mr. Wheeler has served the IRE in such positions as Director (1934, 1940–1945) and Chairman of the Standards Committee; he received the Morris N. Liebmann Memorial Prize from the IRE in 1940. He is a Fellow of the Radio Club of America, an Associate Member of the IEE (British) and a member of Sigma Xi and Tau Beta Pi. He has recently been awarded the Medal of Honor by the IEEE.



Richard M. White (M'63) was born in Denver, Colo., on April 25, 1930. He received the A.B., A.M., and Ph.D. degrees from Harvard University, Cambridge, Mass., in 1951, 1952, and 1956, respectively.

In 1956 he joined the General Electric Company at their Microwave Laboratory, Palo Alto, Calif., where he has been engaged in microwave tube development and in problems relating to high power microwave filters, RF breakdown in transmission lines, multipactor, and optical communication devices. Since 1962, he has been engaged in the study of the interaction of elastic and electromagnetic waves at the University of California, Berkeley, where he is now Assistant Professor of Electrical Engineering.

Dr. White is a member of the American Physical Society, American Association for the Advancement of Science and Sigma Xi.

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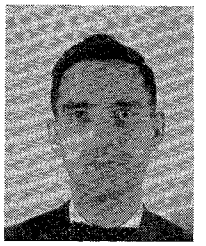

Leo Young (M'54–SM'56) was born in Vienna, Austria, on August 18, 1926. After winning a scholarship from St. Johns College, Cambridge, England, he obtained at Cambridge the B.A. degree with honors in mathematics, in 1945, and the B.A. degree with honors in physics, in 1947. He received the M.A. degree from Cambridge University, in 1950. He was awarded the M.S.E.E. degree by the Johns Hopkins University, Baltimore, Md., in 1956, held the Westinghouse Electric Corporation's B. G. Lamme Scholarship during 1958–1959, and obtained the D.Eng. degree from Johns Hopkins, in 1959.

He was an Engineer with A. C. Cossor, Ltd., London, from 1948 to 1951, and from 1951 to 1953 was associated with Decca Radar Ltd., London, as head of the Microwave and Antenna Laboratory. He came to the United States in 1953, joining the Westinghouse Electric Corporation, Baltimore, where he was an Advisory Engineer in the Electronics Division. Since 1960, he has been a Senior Research Engineer at Stanford Research Institute, Menlo Park, Calif.

Dr. Young is a member of Sigma Xi, the IEE and the Optical Society of America. He is currently Chairman of the San Francisco chapter of the PTGMTT.