

## **Richard F. Bradley**

**Scientist / Senior Research Engineer and Director, Space Electronics Laboratory (NRAO)  
Research Professor of Astronomy and Visiting Assistant Professor of EE (U. Virginia)**

Richard Bradley earned the B.S.E.E and M.S.E.E degrees in 1982, 1983 from Carnegie-Mellon University, and the Ph.D degree in E.E. from the University of Virginia in 1992. In 1981 and 1983 he held internships with the National Radio Astronomy Observatory (NRAO) in Green Bank, WV where he developed instrumentation for laboratory and field work associated with astronomy systems. Upon successful completion of his masters thesis in 1983 investigating novel electrohydrodynamic effects on heat transfer, he joined the NRAO staff in Green Bank as a radio frequency engineer where he designed low noise, cryogenic receivers for the 300 ft and 140 ft radio telescopes before moving to Charlottesville, VA in 1987 to pursue his doctorate, specializing in semiconductor devices, electromagnetics, and nonlinear circuit dynamics.

Upon completing his Ph.D, he joined the NRAO Central Development Laboratory in Charlottesville where he is currently a Staff Scientist and Senior Research Engineer. He is also a research professor in the Dept. of Astronomy and holds an adjunct faculty position in the Dept. of Electrical and Computer Engineering at the University of Virginia. As both an active scientist and engineer, he serves as a liaison among researchers to develop and optimize instruments for a wide variety of forefront scientific applications in the challenging field of radio astronomy. He has contributed to a wide range of radio instrumentation research and development initiatives including pioneering studies in radio interference mitigation and focal plane phased arrays. His scientific interests include cosmology, fundamental particle physics, ionospheric physics, and heliophysics. His technology experience spans radio astronomy receivers, scientific instrumentation, low noise electronics, electromagnetic fields, signal processing, and spacecraft-borne radiometers.

Dr. Bradley is a Past Chair of Commission J (radio astronomy), U.S. National Committee for the International Union of Radio Science (URSI) – an advisory committee of the National Academy of Sciences. He is currently serving as the Chair for Commission J of International URSI. He has been an Associate Editor of the journal *Radio Science* for over fifteen years. At NRAO, he was given a Continuing Appointment in 2009, the 30 year service award in 2015, and the Distinguished Service Award in 2020. He is currently serving on the NASA NESS Steering Committee and is Co-Investigator on the NASA Dark Ages Polarimeter Pathfinder mission. Over the years, he served on numerous review panels for NASA, NSF, and other funding organizations.

Dr. Bradley was inducted into the following honor societies: Sigma Xi, Eta Kappa Nu, and Tau Beta Pi. He was elected Mid-Atlantic Regional Associate Director of Sigma Xi in 2012 and again in 2015, and is currently serving as chair of the Committee on Nominations. He is a member of the Institute for Electrical and Electronic Engineers (IEEE), American Physical Society (APS), the American Astronomical Society (AAS), International Astronomical Union (IAU), American Geophysical Union (AGU), and the American Radio Relay League (ARRL). He received an outstanding referee award in 2010 and 2012 from the journal *Review of Scientific Instruments*. He was the Principal Investigator on several scientific research grants, has over one hundred research publications, and two U.S. patents. He has considerable experience in teaching undergraduate and graduate level courses and advising graduate students from both engineering and science. He is also active in public outreach programs involving local middle and high school students, and serves annually as a judge for the regional and state Science Fairs of Virginia. He has been a licensed radio amateur since 1977, currently operating under the call sign W4DZC (Extra Class).