This presentation is given in celebration of the 60th anniversary of the launch of Explorer 1, the first U.S. spacecraft, and the discovery of Earth’s radiation belts by James A. Van Allen of the University of Iowa. The talk will describe the events leading up to the discovery of Earth’s radiation belts and will describe the tremendous expansion of space research at Iowa over the next 60 years, including the construction of seven successful Earth-orbiting spacecraft and instrumentation on some seventy spacecraft, including such famous planetary missions as the Voyagers 1 and 2 flights to the outer planets, the Galileo orbiter of Jupiter, and the Cassini orbiter of Saturn. Future missions include a flight closer to the Sun than ever previously achieved, and radars on two spacecraft designed to explore the icy moons of Jupiter.

Don Gurnett started his science career by working on spacecraft electronics design as a student employee in The University of Iowa Physics Department in 1959. After completing his B.S. in Electrical Engineering at Iowa, he transferred to physics, where he received his M.S. and Ph.D. degrees in 1963 and 1965. He spent one year, from 1964 to 1965, as a NASA Trainee at Stanford University, and was appointed Assistant Professor at the University of Iowa in 1965 with subsequent promotions to Associate Professor and to Professor in 1968 and 1972.

Don specializes in the study of space plasma physics and has participated in over 40 spacecraft projects, most notably the Voyager 1 and 2 flights to the outer planets, the Galileo mission to Jupiter, and the Cassini mission to Saturn. He is the author/co-author of over 650 scientific publications, primarily in the area of magnetospheric radio and plasma wave research. Now in his 53rd year on the faculty at Iowa, he has received many awards for his teaching and research, including the M. L. Huit Faculty Award, the Iowa Regents Award for Faculty Excellence, and elected memberships in the National Academy of Sciences and the American Academy of Arts and Sciences.