Ted Fritz 1939 – 2020

It is with great sadness that we report that Professor Theodore Fritz has passed away in Santa Fe, NM. Ted was an excellent colleague and we will miss him at BU.

Ted was born and raised in East Tennessee, and he was proud of his Tennessee heritage. If you told someone that Ted was from Tennessee, he would quickly correct you by saying "East Tennessee". He went to college at Virginia Tech and on to grad. school in physics at the University of Iowa, where he joined the research group of Jim Van Allen. He was one of a cadre of stars-to-be working for Van Allen developing flight hardware in the early days of space physics that included Tom Krimigis, Stan Shawhan, Don Gurnett, and Lou Frank. He soon learned the art of designing solid state detector systems along with W. Fillius,T. Krimigis, and T. Armstrong, and flew his first on OGO-4 that performed comprehensive spectral measurements of protons trapped in Earth's outer radiation zone. Ted earned his PhD in 1967 and went on to postdocs at the NRC in Ottawa and NASA/Goddard followed by research positions at the NOAA/ERL/Space Environment Laboratory in Boulder, where he helped design the Galileo EPD intrument that was flown to Jupiter and then moved to the Space Science and Technology Division at Los Alamos. Following this for 23 years he was a Professor at Boston University in the Dept. of Astronomy with joint appointments in the Dept.s of Mechanical and Electrical/Computer Engineering. Ted was recruited to Boston with the specific goal of introducing a space-based component to the strong ground-based science being done at BU. He retired from teaching in 2015 and as Professor Emeritus maintained connections with researchers in the Center for Space Physics.

Ted was by training and inclination a hardware developer, and was PI and Co-I on more flight instruments than can be listed here. Some notable examples include several early energetic charged particle detectors on Injun, Explorer and DOD spacecraft. Later he developed instruments for the POLAR, Viking, CRESS, Cluster, and DSX missions. Shortly after arriving at BU in 1992, Ted embarked on a long-term career goal to build complete scientific spacecraft with the work done by graduate and undergraduate students. This grew into the popular student-focused BU-SAT program. Ted was an expert in attracting funding from multiple sources within BU, the Air Force, and NASA—supporting at times 30-40 students over the summer working on BU-SAT developments. These endeavors led to several small satellite projects including ANDESITE, CuPID and student flights on microgravity airplanes to test the hardware deployment. Ted was in his element working with legions of students, offering advice while giving them a lot of freedom to plan the instruments and missions. As a supervisor to 9 PhD students, he provided insight in research but also cared deeply about them improving as people. He routinely encouraged his students to form strong friendships and relationships with others. His energy and enthusiasm were contagious, and he provided a spark to his research group, the student satellite program, and overall to the Center for Space Physics. While all of this was going on, Ted became an avid fan of the Boston Red Sox and held season tickets for all BU Hockey games.

Ted met his one true love, Sally, while a graduate student at Iowa. He loved to tell the story that Sally was the department staff member who organized the weekly coffee and cookie event prior to seminars ---- always putting aside a special packet of cookies for her favorite graduate student, Ted. "How could I not marry her?" he loved to say. One of us (TK) who was there at the time and also his roomate can corroborate this story. They married before leaving Iowa City for the NRC in Ottawa. Ted and Sally hosted a true multitude of parties at their homes in Newton and Santa Fe. They were not "academic crowd only" events, but included friends and neighbors from various activities and church groups. For the children present, the big treat was to be taken down into his basement to see Ted put on his train engineer cap and run his most amazing train set spanning tables enormous in size. Ted was a true engineer in all of the possible meanings of that word. He made things, explained how things work (in and out of the classroom) and always paid special attention to the youngest children in any setting. He was the perfect grandfather to family, friends, students and colleagues. Ted Fritz is not only a tribute to East Tennessee, but to the full scope of humanity. He is missed by all of us.

Ted is survived by his wife Sally, son Greg (custodian of the train set!) in Massachusetts and daughters Deborah in Santa Fe and Kimberly in Seattle.

John Clarke, Michael Mendillo, and Brian Walsh, Center for Space Physics, Boston University, and Tom Krimigis, at Johns Hopkins Applied Physics Laboratory