Gary Steigman

Gary Steigman, whose work was vital to the development of modern cosmology, particularly the application of particle physics and nuclear physics to cosmological questions, died on 9 April 2017 in Columbus, Ohio, of complications following a fall.

Born on 23 February 1941, Gary grew up in the Bronx, New York. A childhood fan of the New York Giants baseball team, he recounted to one of us (Schererrer) his memory of listening on the radio as Bobby Thomson hit the dramatic home run that propelled the 1951 Giants to the National League pennant. Gary received a BS in physics from the City University of New York in 1961 and his PhD, under the supervision of Mal Ruderman, from New York University in 1968. He joined the Institute of Theoretical Astronomy (now the Institute of Astronomy) at the University of Cambridge as a visiting fellow in 1968 and became a research fellow at Caltech in 1970. Then in 1972 he joined the faculty of Yale University. He left for the Bartol Research Institute at the University of Delaware in 1978 and was recruited to the Ohio State University in 1986.

Gary was seemingly ubiquitous on the cosmology conference circuit, so much so that he often referred to himself as the TWA Professor of Physics. Beginning in 1972 he spent 23 summers at the Aspen Center for Physics, where he served as a trustee in 1978–83, a member of the advisory board in 1983–98, and a longtime organizer of astrophysics workshops. Visitors to the Aspen Center will remember Holly, Gary’s Great Pyrenees dog, a fixture on his travels.

Gary’s contributions to cosmology span nearly half a century, beginning with his PhD dissertation, in which he showed that cosmologies with matter-antimatter symmetry were untenable: The universe must have an excess of baryons over antibaryons. He published The universe must have an excess of antimatter symmetry were untenable: with his PhD dissertation, in which he span nearly half a century, beginning

Gary and Schramm received first prize in the 1980 Gravity Research Foundation essay competition for a paper in which they explored a universe dominated by massive neutrinos; the essay was one of the earliest proposals for a nonbaryonic universe. Later, in a 1984 paper with one of us (Turner) and Lawrence Krauss, Gary raised the possibility of a cosmological constant to allow for a flat universe.

Gary’s most significant area of research was primordial nucleosynthesis. The field grew out of early work by James Peebles, Robert Wagoner, William Fowler, and Fred Hoyle in the 1960s, and because of an improved understanding of chemical evolution and better obser-