Fred Hoyle 1915–2001

Flamboyant, brilliant, controversial, non-conformist, defiant, multitalented – all of these adjectives and more befitted distinguished astrophysicist and cosmologist Fred Hoyle, who died on 20 August aged 85.

After undergraduate education at Cambridge, Hoyle's formal research career was interrupted by the Second World War. His Cambridge research supervisor departed for another position, but, with his work progressing well, Hoyle did not immediately feel the need to find a replacement. Finding that he had to have one for administrative purposes, he turned to Dirac, who rarely took research students but could not resist the "impressive counterlogic" of a supervisor who didn't want a research student who didn't want a supervisor.

During the Second World War, Hoyle worked, like many of his contemporary researchers, on radar development. Among his colleagues were Thomas Gold and Hermann Bondi, and the trio subsequently proposed a "Steady State" theory of creation in which the universe is continually expanding, with fresh matter filling the "gaps". Promoting this theory on BBC Radio in 1950, Hoyle facetiously coined the term "Big Bang" to describe the opposite point of view proposed by Gamow. The name has stuck ever since.

In the 1950s Hoyle worked with William Fowler and the Burbidges on the formation of heavy elements in stars—work that became classic and helped to earn the Nobel Prize for Fowler in 1983. As well as opening up the mysteries of stellar processes, this work also had important implications for nuclear physics.

In 1958 Hoyle became Plumian Professor of Astronomy at Cambridge (the chair once held by Eddington) and went on to head the new Cambridge Institute of Theoretical Astronomy, being very influential in maintaining and reinforcing Cambridge's worldwide reputation in astronomy.

After bitter wrangling, he resigned from Cambridge in 1972 but continued to propose controversial ideas, including a now unfashionable Steady State theory of the universe, and the notion that life and disease on Earth originate from cosmic bombardment. He was also a prolific writer of science reviews and books, and of science fiction, the latter frequently with his son Geoffrey as co-author.

In his 1994 autobiography Home is Where the Wind Blows, Hoyle recounts how he was invited to lunch by Pauli at the 1958 Solvay meeting. Pauli remarked: "I have just read your novel The Black Cloud. I think it is much better than your astronomical work."

Fred Hoyle was the president of the Royal Astronomical Society from 1971 to 1973 and a Foreign Associate of the US National Academy of Sciences. He received prestigious awards in many countries, including the 1997 Crafoord prize, awarded by the Royal Swedish Academy of Sciences, shared with Edwin Salpeter of Cornell. He was knighted in 1972.