

George F. Smoot III is an American physicist who was awarded the Nobel Prize in Physics in 2006, together with John C. Mather, for the discovery of the black body form and the anisotropy of cosmic microwave background radiation. His studies demonstrated the existence of irregularities in the early Universe shortly after the Big Bang, and these led to the subsequent formation of galaxies.

Prof. Smoot led a team of scientists in NASA's Cosmic Background Explorer (COBE) experiment, which aimed to measure fluctuations in cosmic microwave background radiation. The COBE experiment confirmed the existence of these fluctuations and provided solid evidence to support the Big Bang theory.

The results of the COBE experiment were ground-breaking and supported the inflationary model of the universe, which postulates a rapid expansion of space in the first moments after the Big Bang. These discoveries enabled scientists to better understand the formation of galaxies and large-scale cosmic structures.

George Smoot's contribution to our understanding of the universe has been invaluable. His work has provided crucial information about the origins and evolution of the cosmos, and his legacy continues to inspire future generations of scientists.

Along with 500 academic papers, he is also the author of *Wrinkles in Time* (written with Keay Davidson). The popular science book turned his award-winning insights related to the blackbody form and anisotropy of the cosmic microwave background radiation into the more straightforward “seeds” of today’s galaxies. It explained how the research helped further the Big Bang theory of the universe and propelled forward the mega questions of why and how we are here.

Track record and awards

Smoot received his Degree in Mathematics in 1966 from the Massachusetts Institute of Technology (MIT) and subsequently wrote up his PhD in Physics at Harvard University in 1970. He then joined the Lawrence Berkeley National Laboratory in California, where he began investigating cosmic microwave background radiation (CMB). This radiation is the oldest light in the universe, originating approximately 380,000 years after the Big Bang and providing crucial information about the formation and evolution of the cosmos.

Professor Emeritus at the University of California Berkeley and Director of the Centre for Fundamental Physics at the Hong Kong University of Science and Technology (HKUST), he is also president of the Centre for Cosmological Physics at the Astroparticle and Cosmology Laboratory of the University of Paris. Since 2020 he has been a DIPC associate.