



Prof. Martin John Rees

Professor



Most important awards, prizes and academies

Awards: Heinemann Prize of Amer. Inst. Phys. (1984); Bappu Medal, Indian Nat. Sci. Acad. (1986); Gold Medal, Royal Astronomical Society (1988); Schwarzschild Medal, Astronomische Gesellschaft (1989); Guthrie Prize, Institute of Physics (1989); Balzan International Prize (1989); Robinson Prize for Cosmology (1990); Bruce Medal, Astron. Soc. Pac. (1993); Science writing award, Amer. Inst. Phys. (1996); Bower Prize for Science, Franklin Institute (1998); Rossi Prize, Amer. Astro. Soc. (2000); Gruber Prize for Cosmology (2001); Albert Einstein Award of World Cultural Congress (2003); Descartes Prize (2004); Faraday Award, Roy Soc (2004); Crafoord Prize, Royal Swedish Academy (2005); Templeton Prize (2011); Dirac Medal of ICTP (2013). Japanese Order of Rising Sun – Silver Star (2014) Zwicky Prize (2019); Life Peerage (2005); Niels Bohr Medal, UNESCO (2005); Order of Merit (2007). **Academies:** Fellow, Royal Society (1979; President 2005-10); Foreign Associate, Nat. Acad. Sci. (1982); Foreign Hon. Mem., Amer. Acad. of Arts and Sci. (1975); Foreign Member, Amer. Phil. Soc. (1993); Associate Fellow, TWAS (2007). Hon. Fellow: Indian Nat. Sci. Acad. (1990); Royal Swedish Academy of Sciences (1993); Russian Academy of Sciences (1994); Norwegian Academy of Science (1996); Accademia dei Lincei (1996); Royal Netherlands Academy of Science (1997); Finnish Society of Sciences and Letters (2003); Darwin College, Cambridge (2004), King's College, Cambridge (2007); Royal Academy of Engineering (2007). British Academy (2012); Japan Academy (2014) Hon. Degrees:

Sussex, Leicester, Uppsala, Keele, Newcastle, Copenhagen, Toronto, Cardiff, Durham, Oxford, Ohio, Exeter, Hull, Zurich, Sydney, Melbourne, Cambridge, Yale, Harvard.

Summary of scientific research

Research has been mainly on topics in high energy astrophysics, cosmology and galaxies, and space science. Early work concerned the nature of cosmic radio sources, and interpreting the data that first became available in the 1960s on cosmology and very remote objects at high redshifts. Other topics have included the nature of the compact objects emitting strong x-rays, quasars, pulsars, gravitational waves, background radiation, the formation of galaxies, and physical processes in the early universe. He has also been interested in the interface between cosmology and philosophy. Outside the primarily academic sphere, he has also been involved in international space research, and in projects for education, etc. in developing countries. In the last decade he has engaged with issues of technological and environmental risks, and co-founded a Centre at Cambridge University to address these questions.

Main publications

Books: Cosmic Coincidences, Bantam (USA) published by Heinemann (UK) under the title *The Stuff of the Universe* (with J. Gribbin), 1989. *New perspectives in astrophysical cosmology* (CUP, 1995. New expanded edition 2000); *Before the beginning – our universe and others* (January 1997) (Simon & Schuster, UK); (Perseus, USA); several translations; *Gravity's fatal attraction: black holes in the universe*, Published December 1995 (Freeman, NY) (with M.C. Begelman). New editions published by CUP in 2010 and 2020; *Just Six Numbers* (in Science Masters series: Basic Books, US) (Feb 2000, paperback April 2001) translation into approx 20 languages; *Our Cosmic Habitat*, Princeton University Press, US (2001) Weidenfeld & Nicolson (UK) (2002) & various foreign editions; *Our final century*, Random House (UK) (published in US as *Our Final Hour* by Basic Books) plus various foreign editions (2003); *La Lucciola e il Riflettore (The Searchlight and the Firefly)* Di Renzo Editore (Publication April 2004) (in Italian only); *Universe*, published October 2005, new editions 2012 and 2020 by Dorling Kindersley (general editor); *From Here to Infinity (BBC Reith Lectures)* 2010 (Profile, UK) and (WW Norton, US); *On the Future: Prospects for Humanity* (Princeton UP 2018, 20 translation). *Papers*: Approximately 500 research publications, plus many general articles, reviews, etc.