

ROWAN-ROBINSON, Michael 1942-  
(Michael Geoffrey Rowan-Robinson)

PERSONAL: Born July 9, 1942; son of John Christopher and Audrey Christine Rowan-Robinson; married Mary Tubb Lewin, 1978; children: one daughter, two stepsons. Nationality: British Education: Pembroke College, Cambridge, B.A., 1963; Royal Holloway College, London, Ph.D., 1969. Politics: Labour. Religion: "Atheist." Hobbies and other interests: Poetry, politics, theater, music (especially Liszt), golf.

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CAREER: University of London, Queen Mary College (now Queen Mary and Westfield College), London, England, assistant lecturer in mathematics, 1967-69, lecturer 1969-78, reader in astronomy, 1978-87, professor of astrophysics, 1987-93; University of London, Imperial College of Science, Technology, and Medicine, London, professor of astrophysics, Faculty of Natural Sciences, Department of Physics, 1993-2007, became emeritus professor; head of astrophysics group at Blackett Laboratory, 1993-2007. University of Bologna, visiting fellow, 1969, 1971, and 1976; University of California, Berkeley, visiting resident fellow, 1978-79. International Astronomical Union, member of executive committee of Commission 47 on Cosmology, 1976-79; member of Science Team for Infrared Astronomical Satellite, 1977-84; European Space Agency, member of Astronomy Working Group, 1985-88, member of Time Allocation Committee for Infrared Space Observatory mission, 1993-96, coinvestigator for infrared space observatory photometer, 1996-2000; British National Space Centre, member of Space Science Program Board, 1988-91; Isaac Newton Group, chair of Time Allocation Committee, 1988-91; Particle Physics and Astronomy Research Council, chair of Research Assessment Panel for Astronomy, 1994-97; member of time allocation committee for Hubble Space Telescope, 1995-2000; International Organization for Standardization, principal investigator for European Large Area Survey, 1995-2004; coinvestigator for a Spectral and Photometric Imaging Receiver instrument for the Herschel far infrared and submillimeter telescope and for high-frequency instrument for Planck surveyor mission, both 1998--. Guest on television programs, including Horizon, Equinox, Antenna, and Discovery; radio broadcaster for British Broadcasting Corp. Hornsey Labour Party, chair, 1971-72; member of board of governors for area comprehensive schools, between 1971 and 1988.

MEMBER: Institute of Physics (fellow), Royal Astronomical Society (president, 2006--), Scientists for Global Responsibility.

AWARDS, HONORS: Public Service Award, National Aeronautics and Space Administration, 1986; Certificate of Recognition, European Space Agency, 1999; named highly cited researcher in space, ISI, 2003; Daiwa Adrian Prize for Anglo-Japanese collaboration, Daiwa Anglo-Japanese Foundation, 2004.

WRITINGS:

Copernicus (play), broadcast in Polish translation by Bolek Taborski, British Broadcasting Corporation, 1973.

(Editor) Far Infrared Astronomy (conference proceedings), Pergamon Press (New York, NY), 1976.

Cosmology, Clarendon Press (Oxford, England), 1977, 4th edition, Oxford University Press (New York, NY), 2004.

Cosmic Landscape: Voyages Back along the Photon's Track, Oxford University Press (New York, NY), 1979.

The Cosmological Distance Ladder: Distance and Time in the Universe, W.H. Freeman (New York, NY), 1985.

Fire and Ice: The Nuclear Winter, Longman (Essex, England), 1985.

Our Universe: An Armchair Guide, W.H. Freeman (New York, NY), 1990.

Ripples in the Cosmos: A View behind the Scenes of the New Cosmology, W.H. Freeman Spektrum (New York, NY), 1993.

The Nine Numbers of the Cosmos, Oxford University Press (New York, NY), 1999.

Night Vision: Exploring the Infrared Universe, Cambridge University Press (Cambridge, England), 2013.

Poetry represented in collections, including Universities Poetry 6, 1965; Mencard 128, Menard Press, 1992; and Pembroke Poets, Pembroke College (Cambridge, England), 1997. Contributor of more than 250 articles to professional journals, including New Scientist; contributor of poetry to magazines, including Pawn and Carcenet.

Rowan-Robinson's science books have been translated into Hungarian, Japanese, Spanish, Bulgarian, German, and Italian.

SIDELIGHTS: <head n="5">Cosmology and Cosmic Landscape </head>

Michael Rowan-Robinson is an astronomer and astrophysicist and the author of books for the lay reader, as well as academic texts. Cosmology is an updated version of a volume originally published for mathematics and physics undergraduates, in which he studies a broad range of subjects, including the "big bang" theory. A Choice reviewer noted that few astronomy texts are written between the introductory level and the more advanced level of undergraduate astronomy majors, and felt that Cosmology "fits in this gap." Joseph Silk said in Nature that "a reasonably thorough basis is established for cosmological theory."

Library Journal contributor Jack W. Weigel wrote that in Cosmic Landscape: Voyages Back along the Photon's Track, Rowan-Robinson studies recent important discoveries "in a painless, but scientifically correct, manner." David Morrison said in Science that Rowan-Robinson "paints dazzling word-pictures of the universe as seen in different wavelengths of radiation." The book is written for the layperson and focuses on spectral regions that include visible light, radio waves, ultraviolet light, X-rays, gamma rays, infrared light, and microwaves. Within each, Rowan-Robinson begins with objects in the solar system, the sun, and stars, then projects outward in distance and backward in time. "Some classes of objects are noticeable in only one or two bands, whereas others, such as the quasars or the neutron-star supernova remnant of the Crab Nebula, appear again and again," said Morrison, who called the book

"beautifully, almost poetically, written. &hellip; Rowan-Robinson's enthusiasm is contagious."

#### <head n="5">The Cosmological Distance Ladder and Our Universe</head>

Science writer Martin Harwit wrote that with The Cosmological Distance Ladder: Distance and Time in the Universe, Rowan-Robinson "has produced an informative book that guides the reader through the general problem of estimating cosmic distances, points out difficulties along the way, and assembles background data and references to the literature that a large number of astronomers and students will find useful." Raymond E. White reported in Sky & Telescope: "In an interesting narrative manner, the author takes the reader from basic physics to intragalactic distance-measuring techniques, and then to the many methods of obtaining extragalactic distances. After a useful discussion of cosmology, with its plenitude of models, Rowan-Robinson concludes with an exhaustive comparison of the methodology behind evaluation of the Hubble parameters."

Kliatt reviewer Howard G. Zaharoff called Rowan-Robinson's Our Universe: An Armchair Guide "a magnificent book on the heavens." Publishers Weekly reviewer Genevieve Stuttaford noted that "there is nothing soft in the science that Rowan-Robinson summons in order to demonstrate the mysteries of the skies." In this book Rowan-Robinson concentrates on twenty important astronomical objects, including Halley's Comet, the Orion Nebula, Sirius, the Milky Way galaxy and its twin, the Andromeda Nebula, Crab Nebula, Ring Nebula, Nova Aquilae, quasar 3C 273, and the Magellanic Clouds. Many are visible to the naked eye, and all but one can be seen with binoculars. Rowan-Robinson's science is complimented by art, charts, and photographs. An Economist contributor wrote that "the photographs he has chosen are beautiful and elegantly displayed. Infrared light reveals the new-born stars cocooned in the dust around the sword of Orion; radio waves reveal the jets of gas expelled by galaxies; X-rays reveal the mysterious pulsar at the heart of the Crab nebula."

Rowan-Robinson also includes excerpts from the writings of others, including Shakespeare, Whitman, and Frost. Bernard Dixon noted in New Statesman & Society that as Rowan-Robinson shows, an amazing amount of information is contained in a few lines from the Faerie Queen: "By this the northern wagoner had set / His sevenfold team behind the steadfast starre / That was in ocean waves never yet wet, / But firme is fixt, and sendith light from farre / To all that in the wide deep wandering arre." "Edmund Spenser writes &hellip; about Polaris and Ursa Major," continued Dixon, "the relationship of the Plough and the Pole Star, the fact that the Plough never sets, the steadfastness of the Pole Star and its use for navigation." Dixon felt the quotations used by Rowan-Robinson are not merely enhancements to his text but "crucial components."

#### <head n="5">Ripples in the Cosmos</head>

Rowan-Robinson was on the British data analysis team that collaborated with the U.S. National Aeronautics and Space Administration and the Dutch government in launching the Infrared Astronomical Satellite (IRAS) in 1983. A Publishers Weekly reviewer said Rowan-Robinson "offers vignettes

of the personalities, the machines, and the perseverance that powered the project." "IRAS provided the first all-sky map at infrared wavelengths, and revolutionized our perspective on the cosmos," wrote Silk. Rowan-Robinson's Ripples in the Cosmos: A View behind the Scenes of the New Cosmology is an examination of the implications of the discoveries generated by that project and a comparison of IRAS data and the data that resulted from the Cosmic Background Explorer (COBE) satellite.

"Rowan-Robinson brings out clearly the interplay of the COBE and the IRAS data," wrote Peter Atkins in the Observer. "We see, for instance, the origin of the gross asymmetry of the cosmic background as our galaxy, and we, willy-nilly with it, are dragged through space by groupings of galaxies nearby. Rowan-Robinson also explains very clearly the importance of the COBE data."

<head n="5">The Nine Numbers of the Cosmos and Night Vision</head>

In The Nine Numbers of the Cosmos, Rowan-Robinson examines the direction of research in finding the answers to the big questions about the universe, such as its age and its origins. He uses nine numbers that relate to the density of baryonic matter, the anisotropy of the universe, the Hubble constant, the age of the universe, the temperature of the microwave background, the densities of cold dark matter and hot dark matter, the cosmological constant, and the star formation history of the universe. A Publishers Weekly contributor said that "readers should gain an excellent understanding of what we currently know about the universe and the techniques through which we have acquired that knowledge." Library Journal reviewer Harold D. Shane recommended The Nine Numbers of the Cosmos for "informed lay readers who have been following recent developments and would like to know where we stand."

In Night Vision: Exploring the Infrared Universe, Rowan-Robinson presents the results of his astronomical investigations into the infrared, or beyond visible, region of the universe. He reviews the history of the infrared, which was discovered by William Herschel in 1800. In 1840 John Herschel detected infrared absorption by the earth's atmosphere in the solar spectrum. In 1856 Piazzzi Smyth detected infrared radiation from the moon. Over the next century, progress in investigating the infrared was slow, but starting in the mid-twentieth century, the pace of investigations picked up, leading to many important surveys and discoveries made by modern astronomers with the help of improvements in technology. The author notes that because the atmosphere blocks much of the infrared radiation, the use of rockets or balloons to conduct investigations led to limited success. As telescopes became larger and space missions were able to use more sensitive detectors, astronomers have been able to study a wider variety of phenomena such as clouds of space dust, cosmic microwave background radiation, galaxies formed shortly after the big bang, objects in the solar system, and exoplanets.

<head n="5">Rowan-Robinson once told CA:</head>

"Although my professional career has been in astronomy, writing has been important to me throughout my life. I started to write poetry as a student, and my poems have appeared in collections and periodicals and as

start-and end-pieces in my book Our Universe. My main inspiration was the Greek poet George Seferis, whom I met in 1963. I also wrote a play, which was broadcast in a Polish translation in 1973.

"I started to write about astronomy in 1965, for New Scientist, and I have written dozens of popular articles in magazines and newspapers. I have also made many radio broadcasts and appeared on several television programs.

"In my writing I have tried to convey the excitement of working in science, particularly in a dynamic field like astronomy. I have tried to communicate a direct vision of the universe, experienced as a landscape in which we find ourselves. I think of myself as an Aristotelean, trying to show the universe as we observe it with our wonderful modern telescopes."

#### BIOGRAPHICAL AND CRITICAL SOURCES:

##### PERIODICALS

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Booklist, October 1, 1993, Gilbert Taylor, review of Ripples in the Cosmos: A View behind the Scenes of the New Cosmology, p. 229.

Choice, May, 1978, review of Cosmology, p. 424; May, 1994, review of Ripples in the Cosmos, p. 1457; January, 2014, review of Night Vision: Exploring the Infrared Universe, p. 861.

Economist, December 22, 1990, review of Our Universe, p. 117.

Kliatt, March, 1993, Howard G. Zaharoff, review of Our Universe, p. 42.

Library Journal, August, 1980, Jack W. Weigel, review of Cosmic Landscape, p. 1648; November 1, 1993, James Birx, review of Ripples in the Cosmos, p. 144; January, 2000, Harold D. Shane, review of The Nine Numbers of the Cosmos, p. 153.

Nature, February 11, 1982, Joseph Silk, "Variations on Cosmology and Astrophysics," p. 461; November 25, 1993, Joseph Silk, "Discovery of the Century?," p. 373.

New Statesman & Society, September 28, 1990, Bernard Dixon, "Our Stars, Ourselves," p. 37.

Observer (London, England), November 7, 1993, Peter Atkins, "To the Future," p. 19.

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Science, November 14, 1980, David Morrison, "The Invisible Universe," p. 780; October 11, 1985, Martin Harwit, review of The Cosmological Distance Ladder: Distance and Time in the Universe, p. 163; March 11, 1994, review of Ripples in the Cosmos, p. 1455.

Scientific American, December, 1980, Philip Morrison and Phylis Morrison, review of Cosmic Landscape, p. 50.

Sky & Telescope, February, 1981, Stephen P. Maran, review of Cosmic Landscape, p. 148; May, 1986, Raymond E. White, review of The

Cosmological Distance Ladder, p. 465; March, 1993, "Briefly Noted," p. 59; January, 1994, review of Ripples in the Cosmos, p. 58. Times Educational Supplement, December 3, 1993, review of Ripples in the Cosmos, p. 28.

ONLINE

Imperial College, University of London Web site, <http://www.imperial.ac.uk/> (February 18, 2015), faculty profile. Michael Rowan-Robinson Home Page, <http://astro.ic.ac.uk> (February 18, 2015).\*