

# *The Independent*

## **Obituary: Professor Leslie Fox**

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Leslie Fox, mathematician, born Dewsbury Yorkshire 30 September 1918, Director Oxford University Computing Laboratory 1957-82, Professor of Numerical Analysis 1963-83, married 1943 Paulene Dennis (marriage dissolved), 1973 Clemency Clements (nee Fox), died Oxford 1 August 1992. LESLIE FOX exerted a profound influence on the development of numerical mathematics in Britain in the post-war period, bringing discipline to an increasingly vigorous but initially disordered field of research.

During and after the Second World War, the demand for the numerical solution of mathematical problems grew explosively, accelerated by wartime advances in physics and engineering. The end of the war also heralded the rapid development of the electronic computer. The situation was potentially chaotic, with well-trying methods of computation being ousted in favour of new techniques designed to exploit the speed of the new machines. Fox argued consistently for adherence to basic principles; in particular he urged that all computed results should be assumed wrong until proved otherwise.

From this time the emerging discipline of numerical analysis became dominated in Britain by two men, Leslie Fox and his close

friend Jim Wilkinson (JH Wilkinson FRS, who died in 1986), with whom he shared many interests, including a love of music and cricket. Wilkinson was the brilliant academic eager to exploit the potential of the computer, Fox the intuitive mathematician with a vision of his goal and an unerring sense of direction. Together they inspired two generations of numerical analysts.

The most eminent of a remarkable set of mathematicians to emerge from the Wheelwright Grammar School in Dewsbury, Yorkshire, Fox took a first-class degree at Oxford before studying numerical techniques in engineering (under RV Southwell) for his DPhil. There followed an influential spell of two years (1943-45) at the Nautical Almanac Office under DH Sadler (also from the WGS).

At the end of the war Fox joined the newly formed Mathematics Division of the National Physical Laboratory (NPL), in a section led by ET Goodwin. The division also recruited Wilkinson and, for two years, Alan Turing. Dealing with the flow of problems into the division did much to convince Fox that numerical analysis had to maintain a careful balance between academic rigour and practical utility.

After returning to Oxford in 1957 as the first Director of the Computing Laboratory, Fox introduced numerical analysis there as a branch of university mathematics. He also gave his active support to the forging of links between academics and industrial mathematicians, to ensure that his subject remained close to its roots. Equally importantly, he and his colleagues passed on his philosophy to a stream of research students, many of whom now occupy influential positions in British universities. Above all, Fox was a great communicator. The lucid simplicity of his writing style is evident in eight books and 86 papers, while the easy elegance of his public speaking entertained and informed audiences at home and overseas. In later years academic honours rained upon him.

Fox was a keen and able all- round sportsman. He played soccer for Oxford University against Cambridge during the war, and later for Oxford City. At NPL he played soccer, became champion of tennis,

represented the laboratory in the Civil Service Athletics Championships as a sprinter and was captain of the cricket team. He graduated from the seam bowling of his youth into the subtle craft of spin bowling before his return to Oxford, and there he played regularly for the Barnacles Cricket Club. He later took up golf and inevitably became proficient.

While achieving so much in diverse spheres of activity, Leslie Fox retained his innate modesty with quiet dignity. He was a private man of equable temperament, strong-minded and fair. With his wide interests, his wit and his erudition, he was always worth listening to, and always ready to listen.