Professor Nigel Kalton

Mathematician who was nicknamed 'the bulldozer' for his work ethic and talent for solving problems that had baffled colleagues.

Within 48 hours he had solved the problem on continued fractions.

As a mathematician, Professor Nigel Kalton inspired tremendous respect from his peers for the great depth and breadth of his mathematical output, his skill in problem-solving, his ferociously hard work - he was affectionately known as "the Bulldozer" - and his endearing personal qualities.

Nigel Kalton was born in 1946 in Bromley, Kent, the son of Gordon and Stella Kalton (the name Kalton is an anglicised form of the original German family name).

He was educated at Dulwich College where his first love was mathematics but he also developed significant prowess at chess while at Dulwich and Trinity College, Cambridge. He played in the Dulwich team which took second place in the 1964 UK Schools Team Championship, successfully represented Trinity in the college league and came second twice in the University of Cambridge championship.

He also gained a half-Blue playing in the annual varsity match against Oxford. His most impressive individual success was to win the major open section of the 1970 British Championship, which was a qualifier for the 1971 British championship. Thereafter, he focused his energies on mathematics but he returned to competitive chess in the 1990s with a number of correspondence games.

After his undergraduate studies, Kalton did research in mathematics at Cambridge, working on Banach spaces (infinite-dimensional extensions of ordinary space) under Dr D. J. H. (Ben) Garling; he took his PhD in 1970. His thesis was awarded the Rayleigh Prize for research excellence. Kalton then held positions at Lehigh University in Pennsylvania, Warwick and Swansea.

Kalton then moved to the United States permanently. This was partly a matter of speed of promotion and salary but mainly because of working conditions - research grants, books and journals - and access to other specialists in his area. He taught at the University of Illinois and Michigan State University before moving to the University of Missouri, where he spent the rest of his career, apart from several visiting positions. He maintained his academic links with British mathematics, but his career moves, and the reasons for them, are good examples of the well-publicised phenomenon of the brain drain.

Many stories were told about the speed, power and penetration of Kalton's thinking. On one occasion, the French mathematician Gilles Pisier gave a talk on an approach by Le Merdy to a problem due to the Russian mathematician Vladimir Peller, which had been open for 20 years. Kalton was in the audience, immediately engaged with the problem, and solved it shortly afterwards (joint work with Le Merdy in 2002). On another occasion, he was consulted by Jerry Lange about a problem on continued fractions that he had been working on for 15 years. Kalton solved it within 48 hours; his solution was later used to solve a problem of the great Indian mathematician Ramanujan. Kalton was described by colleagues as one of the few genuine geniuses of the mathematical world.

Honours awarded to Kalton included the Stefan Banach Medal, named after the Polish mathematician who gave his name to the spaces on which Kalton did much of his work. This prize was established by the Polish Academy of Sciences in 1992 in honour of the centenary of Banach's birth. Kalton was also honoured by a conference for his 60th birthday at Miami University, Ohio, and by the resulting conference proceedings. Kalton served extensively
on the editorial boards of learned journals, and had 11 PhD students. He wrote some 270 papers and six books.

In person, Kalton was an engaging and modest man, despite his great achievements, but he remained famously competitive. His children and grandchildren complained that he never let them win anything.

He is survived by his wife and a son and a daughter. Nigel Kalton, mathematician, was born on June 20, 1946. He died after a stroke on August 31, 2010, aged 64