NZMS Newsletter 46 August 1989

CENTREFOLD

Dr Brent Wilson

When Brent Wilson died suddenly on 21 June in Sussex, England, the University community lost a very lively and talented colleague and friend.

Many members of the University, and most of the science faculty in particular would have had contacts with him, for Brent Wilson was a mathematician who was also intensely interested in the application of his subject to a wide variety of disciplines. Nothing pleased him more than when the solution of a problem involved an elegant piece of mathematics. It was perhaps this pursuit of the elegant, even grand, result that led him to such a variety of interests.

Brent Wilson spent most of his life in Christchurch. He was born there in 1941 and attended Christchurch Boys' High School where he was Dux in his final year. From school he went to the University of Canterbury from which he graduated Bachelor of Science with First Class Honours in Mathematics in 1962. He won the Lord Rutherford Memorial Fellowship, studied at Emmanuel College, Cambridge and received his Doctorate in 1968 for his thesis on co-operative instabilities in stellar systems. A short time later he joined the staff of the Mathematics Department at Canterbury where he remained until his untimely death.

After his return to Canterbury his interests broadened to include relativity where he tackled the very difficult problem of quaternion spinors in gravitation theory. He also worked on mathematical models in biology and on the geometry of statistical models while still pursuing his active research in stellar dynamics and astronomy. But it is perhaps in the theory for which he coined the term "Thermoeconomics" which most typifies the nature of Brent Wilson's special talents. Here he formulated a theory of economics using the equations which occur in the branch of physics known as thermodynamics.

Brent Wilson will also be remembered for his enthusiasm, his inventiveness and his wit. These qualities contributed to his excellent teaching reputation and to his being sought as a popular speaker on topics mathematical. He was often asked to deliver the address at the

prize giving for the BNZ Mathematics Competition for high school students, and on one such occasion he chose to speak on the mathematics of Rubik's cube, then at its height of popularity. To make the talk more interesting he devised a method whereby he would (almost) solve the cube behind his back at the same time as he was giving his talk. The specially prepared but random looking cube was given to the audience to make two moves. After executing the 36 or so special moves behind his back without faltering in the delivery of his lecture Brent took the cube from behind his back expecting it to be just a few moves away from complete. However, on this occasion a miracle happened and much to the surprise of the audience and the even greater surprise of the speaker the cube emerged completely solved.

It could never be said that Brent Wilson avoided publicity. He and a few of his colleagues decided that the University should honour the Centenary of the birth of Albert Einstein. On 14 March, 1979 the lights in selected offices in the Chemistry-Physics building were switched on so that, when viewed from Ilam Road, the building displayed the famous formula $E = mc^2$ in gigantic characters. Brent Wilson was also well known as the leader of the "Maths Team" which, on the nights of the 78, 81, 84 and 87 general elections, made successful predictions on Radio NZ of the election results using early returns. In 1978 a series of six television programmes which he made with Dr John Hearnshaw (Physics) on "the Astronomers' Universe" were broadcast.

Out of the limelight, too, Brent Wilson happily took on many professional responsibilities. He was NZMS Secretary from 1976–7, Council Member from 1976–9 and Editor of this Newsletter from 1980–1. He in fact originated the idea of using the Centrefold as a regular feature of the Newsletter with his first issue in August 1980 (featuring John Butcher). As a representative of the Royal Society of NZ he was on the National Committee for Astronomy, and on the Carter Observatory Board. He was also a former chairman of the local Mathematics and Physics Section of the Society.

Brent was friendly, yet forthright. He was always keen to argue a point, often in a very direct manner, but never bore any malice. He had many interests outside his professional life, including a great love of classical music, art and literature. He was immensely practical and deservedly had the reputation of being able to fix anything from the former Head of Department's grandfather clock to a complex piece of modern electronic equipment. Brent Wilson was one of the real characters in the University. He will be remembered with great affection and sadly missed by all who knew him.

He is survived by his wife Anna and daughter Charlotte.

Murray Smith

(This photograph and article first appeared, in slightly different form, in the *University of Canterbury Chronicle*, Vol 24 No 12, and is used with permission.)