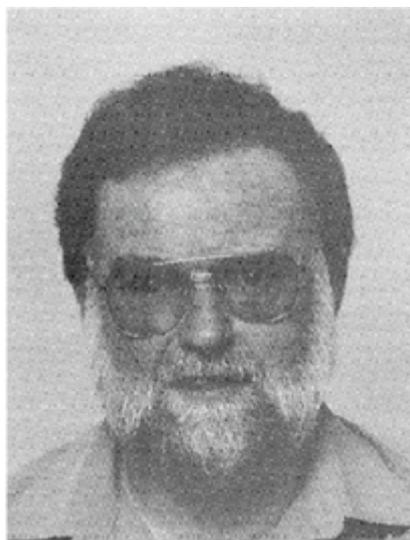


CENTREFOLD

Professor Derek Holton



Derek Holton is British by birth, mainly Australian by education and family ties, and a New Zealander by recent adoption. Currently he is the genial and energetic Professor of Pure Mathematics, and about to start his second five year term as Chairman of the Department of Mathematics and Statistics at the University of Otago. Since taking on these positions, Derek has impressed both the local and national mathematical communities with the breadth and vigour of his mathematical and administrative achievements.

Derek Allan Holton was born at Chesham Buckinghamshire on January 24, 1941. His family emigrated to Melbourne, Australia in 1957. There Derek completed his B.Sc. in 1961, Dip. Ed. in 1962, and M.A. in 1967. In the midst of this activity, Derek and Marilyn were married in 1965. Sara, their first child, was born in 1967. Timothy arrived in 1969 while the family was in Montreal. There Derek received his Ph.D. from McGill University in 1970. Then it was back to the University of Melbourne as a lecturer. Nicholas and Matthew were born in Melbourne in 1970 and 1971. Apart from visiting appointments, Derek remained there until accepting the chair in Dunedin in 1985.

Derek's research in graph theory and combinatorics has developed from his Ph.D. in group theory at McGill. Groups figured prominently in his early work with graphs, where he used the automorphism group of a graph to study its structure. In later years he has studied the structure of graphs using the machinery of graphs themselves. These investigations have led to results in planarity of graphs, cycles through specified vertices and edges, and related structural characterizations of graphs. Derek has worked with many of the biggest names in graph theory/combinatorics, and is well respected in their ranks. The numbers in these ranks have been swollen by the interest Derek has stimulated. Top class research students have been attracted from around the world to work with Derek. Many have gone on to become leaders in graph theory/combinatorics.

As well, Derek has been involved in Mathematics Education, such as projects assessing the

differences in boys and girls mathematical performances. One of the interesting results to come out of these collaborations is that despite girls' superior verbal skills, they do not perform as well as boys on mathematical word problems.

To the detriment of his research, Derek has pursued the popularisation of mathematics and science. To quote him,

"People need to know that we exist, what it is that we do and where it might all lead. They also need to know that we enjoy doing it."

Most obvious have been his contributions in radio and television. Amongst these, in 1985 and 1986 he appeared on the ABC Science Show; in 1986, 1987, 1988 and 1989 he had varying input to University Challenge; in 1987, 1988, 1989 and 1990 he was a consultant for the Krypton Factor. There have been several books and articles of general interest, and service on enumerable committees. But of major note has been his work with the more able students. In 1986 Derek launched the National Bank Junior Mathematics Competition, which has run most successfully since then. This year there were over 6000 participants. These competitions have identified New Zealand's most able young mathematicians. From them a select few have participated in training camps, with the elite going on to represent their country in Mathematical Olympiads in Canberra, in Braunschweig (West Germany), and, in 1990, in Beijing. In January of this year Derek helped launch Hands-on Science in Dunedin. This was a science summer camp for 140 school students of exceptional ability. The principal emphasis was on hands-on participatory activities in a wide range of disciplines, including anatomy, food science, marine science, mathematics, human nutrition and psychology.

Since 1989 Derek has been Deputy Chairman for the Division of Sciences at Otago University. He is currently Vice President of the New Zealand Mathematical Society, taking over the presidency from next May. An excellent administrator, Derek has been called upon to do more and more in this area. His workload is huge, but he is never too busy to assist someone, or to exchange pleasantries. We who benefit can only regret that there will be fewer research students supervised, fewer articles written and fewer courses taught. We wish Derek good health and continued vitality.

John Rayner