## CENTREFOLD



**Margaret Morton 1944–2000** 

With much sadness we report the death of our friend and colleague, Dr Margaret Morton, aged only 55, after a short battle with cancer this year. Margaret was Secretary of the NZ Mathematical Society from 1993 to 1995.

Margaret was an amazing person—highly intelligent and determined. After years of raising a family and then moving back home to New Zealand from the US in the early 1980s, she set out to establish an academic career at the University of Auckland while in her 40s. This was no mean feat! In addition to teaching and more general service, Margaret wanted to fully engage in research, in both pure mathematics and mathematics education. The fact that she succeeded in all these areas is a tribute to Margaret's tenacity and inner strength, as well as her natural ability.

Margaret was a student at the University of Auckland in the 1960s, and went on to complete a PhD at Pennsylvania State University in 1975, the first woman graduate of the University of Auckland to receive a PhD in Mathematics. She subsequently worked part-time as an Instructor in colleges and universities in Pennsylvania and Texas. After returning to Auckland, she worked as a Programmer before being appointed to a Tutorship in the Mathematics Department here. She was promoted to a Lectureship in 1991, and to a Senior Lectureship in 1998.

Following an early publication in 1976, Margaret returned to research in the late 1980s and went on to publish two mathematics textbooks, ten papers in mathematics education, and eight papers in graph theory, most of these in the last five years.

Margaret's work in mathematics education spanned several areas, particularly gender issues, performance in national examinations, graduate student support and supervision, and collaborative tutorials. Her co-authors include Sharleen Forbes, Alan Lee, Barbara Miller-Reilly, Greg Oates, John Pemberton, Heather Rae, Ivan Reilly and Gillian Thornley. Up to the time of her death Margaret was also acting as co-supervisor for Barbara Miller-Reilly's PhD research in mathematics education.

In graph theory Margaret undertook joint work with several people locally and overseas, including Professors Brian Alspach (Simon Fraser), Neal Brand (Texas), Marston Conder (Auckland) and Cheryl Praeger (Perth). More recently, she and her Auckland colleague Dr Paul Bonnington won a Marsden Fund grant, in 1998. Margaret was one of very few women mathematicians to have received a grant of this kind. Although Margaret was always modest of her abilities and the results of her research, what she achieved was phenomenal.

A conference is to be held at the University of Auckland in mid-December on Algebraic and Topological Methods in Graph Theory, and the organisers have decided to dedicate the conference to Margaret, and to hold a half-day special session in her honour.

Margaret's concern with the lack of women in science and engineering saw her serve on many committees within the university and nationally. She spent more than a decade as a core member of EQUALS, a mathematics teachers' network for teachers at all levels concerned with equity issues in mathematics education. This group had a profound and positive impact on Margaret, as it did on many women in the mathematical sciences in New Zealand at that time.

At Auckland Margaret made us all sit up and re-think what we do in the Mathematics Department. She helped us learn to see things from many perspectives (not just our own), and was a wonderful advocate for students and for

younger staff. She did a fantastic job as Teaching Coordinator, helping introduce much better feedback mechanisms and well thought out processes for maintaining and improving our teaching resources. She was also a champion for new appointments, and especially the need for mentoring of new staff. Margaret was very direct and generous in her support of others, leaving behind her many strong friendships. As one woman colleague said "I am very grateful for the gift of her friendship and will remember her always with great affection and love."

Margaret was a plucky and sporty person with a wide range of personal interests, especially outdoor activities such as tennis, walking, kayaking and golf. She particularly loved the ocean.

Margaret has three children (David, Robyn and Andy) to whom she was devoted. They describe her as fair, non-judgemental and always ready to help them out. In their own words, they "couldn't have had a better mother—she was the best".

Marston Conder, Barbara Miller-Reilly, Constance Brown, Gaven Martin