PROFILE

David Wall

Professor David Wall (pictured, in one of his favoured environments) retired from the University of Canterbury's Department of Mathematics and Statistics at the end of June 2015. He had served as a member of its staff for over thirty years, since 1984. This included his time as Professor of Applied Mathematics (2007–15) which he did with distinction, continuing the long line of Professors in (Applied) Mathematics at the University of Canterbury, which includes notable names like Charles Weatherburn (1924–29), Derek Lawden (1956–67) and Roy Kerr (1971–94). He also embraced the ethos of Engineering Mathematics pioneered so well earlier by the long-serving Emeritus Professor Brian Woods who was the first full Professor in that subject.

David began his University studies in Engineering at the University of Auckland with a first class honours degree in 1971, having first done an NZ Certificate in Engineering (Telecommunications) at the then Auckland Technical Institute. (The latter was a great qualification and, to reminisce, I would have been an external examiner in Mathematics at the time David came through these examinations!!). This underlines the point about the value of links across different levels of the tertiary qualification network. Lured by the activity of the iconic late Richard Bates, then at the University of Canterbury's Electrical Engineering Department, David completed his PhD in 1976 with a thesis entitled: "The null field approach to diffraction theory". That set the scene for what followed. In the late 1970s he spent a couple of years in research fellowships in Scotland and the US, thereafter returning to NZ to take up a succession of positions in the Department of Mathematics and Statistics in 1984. This served to enhance further the links between Mathematics and Engineering, with increased shared teaching and research which has proved of mutual value, and should be retained.

David's research blossomed at Canterbury. He developed a leading profile in the theory of inverse problems in engineering applications and developed new techniques for identifying key underpinning processes with unerring precision. Research students expanded and invitations to speak followed in quick succession. I was indeed fortunate myself to lure him further into the realm of mathematics-in-medicine and we had much satisfaction developing a project on modelling dynamical behaviour of cell-populations. This work was driven by the application to tumour-cell growth and was well cited internationally. A large group still pursues this in collaboration with people

both here and overseas. His current interests are impressive. These cover major areas of Mathematics and Applied Mathematics: the aforementioned area of Mathematical Biology, Applications of Dynamical Systems theory, Inverse Problems, Mathematical Wave Theory and significant areas of Numerical Analysis. His publications show high impact. A quick look at his publication citations shows David has an H-index of over twenty, which is high for the mathematical sciences.

At Canterbury, he is warmly remembered for his steady stewardship of somewhat unsettled times and steered the Department through restructuring which benefitted from his very even-handed calm approach to competing groups He led the way in shifting the Department to the College of Engineering as its primary grouping and led the development of a new major in the BE degree in Engineering Mathematics. The Canterbury earthquakes also provided challenges which were somewhat formidable. He was a very popular Head of Department for two terms (2003–9).

David is held in high regard by all colleagues who know him, many from afar. He is very people-focussed and enjoys many wide interests outside of mathematics. Though he is now nominally 'retired', he will remain in touch with the Department and continue his research interests here and in Europe unencumbered by the heavy demands of modern-day academic life. We wish David and his wife Frances many happy times ahead, and confidently expect he will now see more of the splendid scenery in the photograph shown above.

Graeme Wake