

Alex McNabb Special Session: ANZIAM 2019



A half day Special Session is to be held during ANZIAM 2019 in honour of Alex McNabb DSc, FRSNZ one of New Zealand's leading real-world mathematicians. Many of his co-workers are expected to contribute. In continuum mechanics, he is clearly one of the best known New Zealanders both here and overseas. His contributions both to the theory and application of mathematics, especially differential equations, have given rise to the high regard accorded his work by a widely diverse group of scientists. He is the author of many papers in applied mathematics. On the practical side Dr McNabb has made notable contributions to a multitude of diffusion-type problems. These are a host of different applications: timber treatment, moisture in soil, heat and moisture in wool, hydrogen in metals, and, more recently, flow and diffusion in geothermal applications. He has been crucially involved in the theory of hydrothermal systems as they appear in New Zealand and he, assisted by his colleagues at Applied Mathematics Division (D.S.I.R.), have made important contributions to our understanding of these phenomena. The same is true of his work for New Zealand Steel on the smelting of iron sand. Notable amongst this work has been his 1963 contribution on the diffusion of hydrogen in iron and steel—his paper on this subject was denoted as a Science Citation Index Classic in 1983. These applications involve a careful study of (usually nonlinear) processes involving nonlinear differential equations.

With the closing of the Applied Mathematics Division in 1992, Alex then held several research appointments in Universities in NZ and various Research Organisations overseas. A notable idea that emerged during this time is that of “mean-action-time”. He was in fact born in Nelson (in 1930) and now lives in retirement in Auckland with his wife Yvonne. They are expecting to join us at ANZIAM in February.



“Benchmark.... Applied mathematician Dr Alex McNabb shows off his gymnastic skills on some horizontal bars” (Australian Higher Education).