



Communications

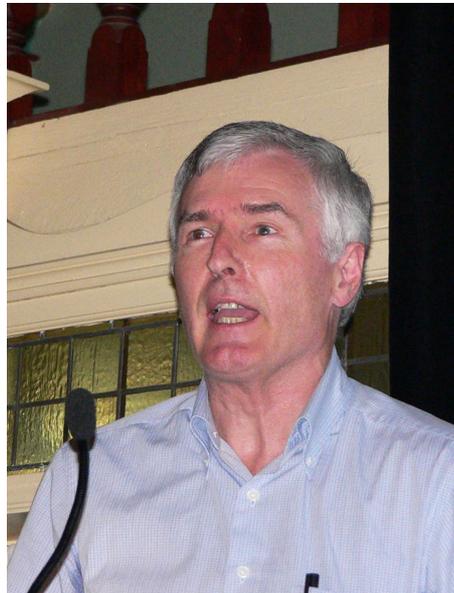
Professor Jim Hill awarded the 2008 ANZIAM Medal

The 2008 ANZIAM Medal is awarded to Professor James M. Hill. The panel cite the following outstanding contributions by Professor Hill in terms of the three selection criteria for the medal.

1. Research achievements

Professor Jim Hill is one of Australia's pre-eminent research applied mathematicians. He was first promoted to Professor at the University of Wollongong in 1988, a year in which he received his D.Sc. from the University of Queensland. Over a long research career starting in 1969, he has published five books and more than 200 refereed papers in research journals, a record not ever surpassed by many in Australian and NZ mathematics.

Jim is presently an ARC Professorial Fellow, and is the head of the Nanomechanics Group at the University of Wollongong. This group studies the mechanical behaviour of carbon nanotubes, and heat transfer and electro-rheological effects in nanofluids. Jim has received a total of about \$4m in ARC funding for this and many other projects. His other research fields include finite elasticity, heat transfer, diffusion, moving boundary problems, differential equations, and granular materials.



Professor Jim Hill

2. Activities enhancing applied or industrial mathematics, or both

Professor Hill has over many years successfully mentored more than 60 young people, including honours students, PhD students, post-doctoral appointees and younger colleagues, the majority of whom are still very active mathematicians. He has supervised 14 PhD students and over 20 post-doctoral appointees, most of whom are now working either in academia, government research laboratories, or the finance industry.

In the industrial area, he has collaborated with P.J. O'Connor, a Sydney manufacturer of rubber engineering components, to determine analytical load-deflection relations for rubber bridge bearings and for cylindrical rubber bush mountings. In

conjunction with BHP Research, he has developed mathematical models for the colourbond roller coating process, the continuous casting process and the annealing furnace. In 1992 he was made a Companion of the Institution of Engineers, Australia, which is a status equivalent to a Fellow for persons not having an engineering background.

3. Contributions to ANZIAM

For a period of two years Jim held the position of Chair of ANZIAM, and has always encouraged and financially supported his students and post-doctoral associates to participate in all ANZIAM activities, especially the annual conferences and the Mathematics in Industry Study Groups. He has also recently served as Vice-President of the Australian Mathematical Society for a period of two years. Jim has been an Associate Editor of the ANZIAM Journal for more than 25 years.