

National Strategic Review of Mathematical Sciences Research in Australia

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Concern over ‘failing health’ of Australia’s mathematical sciences

In an unprecedented move, the international mathematics and statistics community has rallied in support of their Australian colleagues and signed an open letter to Prime Minister John Howard (see opposite), urging him to prevent the imminent collapse of our national mathematical sciences capability. More than 110 of the world’s leading mathematicians and statisticians and almost 400 Australians have signed the open letter, calling on the Prime Minister to address the ‘perilous path’ of Australian mathematics and statistics as a matter of urgency.

The open letter was circulated three months after the release of the National Strategic Review of Mathematical Sciences Research in Australia, in which business leaders, top government agencies, universities and mathematicians and statisticians warned that the system was near collapse. Although the issue has received widespread media coverage since the release of the review, the Australian Government has so far failed to take any action to implement the key recommendations.

Worryingly, since the review was released, matters have further deteriorated, with the already seriously depleted base of mathematical sciences in Australian universities being further eroded, with a number of universities currently reducing staff through voluntary or forced redundancies.

Many of the world’s mathematical sciences leaders including Sir John Ball (President of the International Mathematical Union), Professor Terence Tao (Fields medallist), and Sir Michael Atiyah (Fields medallist) signed the letter.

Australians who signed the letter included academic mathematicians and statisticians, teachers, engineers and geophysicists, many from medical research and others from diverse fields. They included Professor Suzanne Cory (Director, Walter and Eliza Hall Institute of Medical Research) and Professor Ian Sloan (President of the International Council for Industrial and Applied Mathematics).

On behalf of the Australian mathematical sciences community and the Review Working Party, we thank them all.

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An Open Letter to the Prime Minister of Australia

Australia has had an international reputation for excellence in research and teaching in mathematical sciences and has produced many fine mathematicians and statisticians. This reputation was further enhanced when Professor Terry Tao was awarded the Fields medal in 2006.

The findings of the recent National Strategic Review of Mathematical Sciences Research in Australia, completed in December 2006, are therefore deeply disturbing. Australia cannot continue to make this kind of contribution from its shrinking research base and narrow concentration of research fields. The Review found that the shortage of mathematical modellers and statisticians is so severe that it inhibits work of business and industry, such as mining and biotechnology companies and financial institutions, and government agencies including the Australian Antarctic Division, the Australian Bureau of Statistics and CSIRO. The shortage brings pause to foreign companies' plans for investment in Australia.

The collapse of Australia's mathematical sciences departments also prevents them from educating the mathematics teachers that are so desperately needed by the nation's schools.

The three distinguished international reviewers, Professor Jean-Pierre Bourguignon, Dr Brenda Dietrich and Professor Iain Johnstone, found 'the nation's tradition and capability to be on a truly perilous path'.

Even more disturbing is that, in the short time since the Review, the already seriously depleted base of mathematical sciences in Australian universities is being further eroded with a number of universities currently reducing staff through voluntary or forced redundancies.

We have noted your commitment, quoted in the Review, that 'in this ever more competitive global economy, Australia's science, engineering and technology skills need to match the best in the world'. Science, engineering and technology skills depend on mathematical sciences. We, the undersigned, urge the Australian government to take urgent action and immediately address the priority areas identified in the Review.