



# NCMS News

## Peter Forrester\*

Recently the Chief Scientist's office produced a draft document relating to Australian infrastructure needs in Science and Technology. This involves to some extent projecting into the future, and prioritizing areas that will give the greatest national return. From the viewpoint of the mathematical sciences, an area of growing national importance that should be better supported in an academic-business-government network is cyber security. If this has not been obvious for some time, the high profile malware attack on the Australian Bureau of Metereology computer network, and the crippling of the census night website, bring this dramatically to the attention of the public.

A model of how relevant parties may be better networked can perhaps be found in the UK's Heilbronn Institute. This is a partnership between UK Government Communications Headquarters, and the University of Bristol. Each member of the Institute spends half their time pursuing research directed by the Government Communications Headquarters, and the other half doing personal academic research. In the Decadal Plan for the Mathematical Sciences, Item 5 of Chapter 3, Australian strengths in the mathematical sciences, states that 'Australian mathematical scientists build collaborations with each other, across industries and with other disciplines.' Generous government support to industry internships for PhD students is clearly a facilitator of this strength. On the other hand, there is nothing similar to the Heilbronn Institute at present in Australia. If there was to be, a number of mathematical scientists otherwise conducting research in a purely academic environment would have an opportunity to use their skills for important government needs. It may well be that the culture so created would feed down to the teaching of mathematics in the undergraduate program.



Peter Forrester received his Doctorate from the Australian National University in 1985, and held a postdoctoral position at Stony Brook before joining La Trobe University as a lecturer in 1987. In 1994 he was awarded a senior research fellowship by the ARC, which he took up at The University of Melbourne. Peter's research interests are broadly in the area of mathematical physics, and more particularly in random matrix theory and related topics in statistical mechanics. This research and its applications motivated the writing of a large monograph *Log-gases and Random Matrices* (PUP, Princeton) which took place over a fifteen-year period. His research has been recognised by the award of the Medal of the Australian Mathematical Society in 1993, and election to the Australian Academy of Science in 2004, in addition to several ARC personal fellowships. He was AustMS President from 2012 to 2014.

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