



# Editorial

A few weeks ago, University of Melbourne's vice-chancellor Glyn Davis released the document *Growing Esteem*, outlining his vision for the future of UofM. Davis wishes to adopt an American (and tomorrow's European) style two-tiered degree system with a broad three year first degree followed by graduate school. Since the latter would mainly comprise of full-fee paying students, the University would break the cycle of having to continually grow to meet expenses, and eventually reduce its numbers from around 50,000 to 35,000. In anticipation of these radical plans the university has already dispensed with the tag "public", replacing it with the slogan "publicly-spirited". Other Victorian Universities were quick to condemn UofM, claiming it would cherry pick students, teachers and researchers, reducing equity and access.

At around the same time as *Growing Esteem* was made public, the University of Sydney announced a large number of university funded research fellowships, many at the professorial level (<http://www.usyd.edu.au/research/fellowships/>).

A third and rather more subdued announcement was recently made by Charles Darwin University, which as part of a university restructuring, has axed a large part of its mathematics programme. See also Ian Wanless' **Letter to the Editors**.

The above developments probably mark the onset of a more competitive university environment — in part triggered by the RQF and in part by reduced federal funding — where smaller institutions will struggle to be more than just teaching colleges, and where the G8 universities will attract an even larger share of research funding. It is to be hoped that organisations such as the AustMS can unite us in an otherwise more fragmented and divided academic world.

In **My brilliant career**, mathematics educator Peter Gould describes the everlasting fight against the Brussels Sprouts effect — most people believe that mathematics is good for you yet very few want to consume it themselves. On a similar theme, Don Taylor suggests in his **Math matters** column *Firmness, Commodity and Delight*, how the public perception of mathematics can be improved. He reminds us of G.H. Hardy's statement that "... there is no permanent place in the world for ugly mathematics." In both **Mathellaneous** and the **The 13th problem** Hardy's words clearly echo through. In **Mathellaneous**, Norman Do reports on some beautiful exact enumerations of two-dimensional tilings, such as the number of domino tilings of checker boards (can you see why it should be a perfect square for a regular checker board?) and Aztec diamonds of arbitrary size. In the 13th problem, Tomaso Aste and Tiziana Di Matteo describe an elegant but extremely difficult problem with a similar geometric-combinatorial flavour: that of finding the smallest sphere that can contain  $n$  spheres of unit diameter.

Finally we wish to thank everyone who has contributed to the *Gazette* in 2005. In particular we thank all reviewers and local correspondents, and are especially indebted to our regular columnist Norman Do and to our referees Liz Billington, Peter Cerone, William

Chen, Dave Coulson, Peter Donovan, Mike Eastwood, Joseph Ha, Mike Hirschhorn, Owen Jones, Dirk Kroese, Keith Matthews, Terry Mills, Alexander Molev, Eckhard Platen, Jamie Simpson, Terry Speed, Peter Sullivan, Ernie Tuck, Rudolph Výborný and Nick Wormald.