

1. Dame Reddy, Professor Hyland, distinguished guests, ladies and gentlemen.
2. I am truly honoured by this award.
3. It is always rewarding to see mathematics recognized in New Zealand Science. Mathematics is a great study in “you never know what will be useful.” Alan Turing answered an obscure problem in logic called the entscheidungsproblem and his answer was significant in the development of computers. The great Kiwi mathematician Sir Vaughan Jones was looking at structural aspects of an obscure class of objects called “Type II Subfactors”, and a consequence of this work was the incidental discovery of a new invariant for knots and braids. The “Jones Polynomial” is now used in quantum physics and DNA analysis among other things. I recall a professor telling me that “Fuzzy logic” was “mathematical pornography” yet there is is now implemented in circuits which decide lengths of cycles in washing machines. My work with Mike Fellows began with trying to understand the computational complexity of problems relating to “well quasi-ordering theory”. Much to my astonishment, it has yielded a method of systematically attacking computational problems. It has found applications from the effects of low-level radiation on DNA, analysis of evolution of Indo-european languages to causes deafness of aboriginal children in Northern Territory Australia. Perhaps this utility comes from the fact that mathematics deals with fundamental concepts at the basic level. It underpins huge amounts of modern science but is often a hidden tool. New Zealand has a number of world class mathematicians. One big reason for this is the efforts of our Fields Medallist Vaughan Jones, with the early NZMRI and the NZIMA.
4. Since my wife and I arrived here without luggage in a gale southerly in June 1986 to stay “a couple of years” we have found New Zealand a great place to live. It has a excellent tradition of science. Our kids have flourished. It also has a good medical system which kept me alive when I had a soft tissue sarcoma; especially my GP Jim Aubrey (who had never seen one before, but sent me off to be checked “just in case”), surgeons Rob Rowan and Gordon Beadel, and radiation oncologist Saurat Chanda. By the way, being stuck at home recovering from surgery is a great way to find time to write a 880 page book on algorithmic randomness; though I am not sure I recommend it.

5. It is another study in mathematics. Soft-tissue sarcomas are very rare in people with fewer than 20 cases total per year in NZ (but not in dogs, good research question...). But a Canadian long-term statistical study showed that in situations like mine, “resection” had the same survival outcomes as amputation, and “better functionality”.
6. Victoria a uniformly excellent place to be a mathematician and a theoretical computer scientist. I have had a great group of colleagues, and work in a brilliant logic group. Great to see Matt Visser awarded the Hector Medal tonight. I have had support throughout from School manager Ginny Whatarau, my HoS’s (particularly Peter Donelan here tonite) and from the administration, especially from Neil Quigley and Kate McGrath. Vic supports excellence.
7. Down through the years my work has been supported by Marsden and the sorely-missed NZIMA Centre of Research Excellence, enabling a series of 21 postdocs plus some grad students to work with. Last year I was quite moved when they organized a meeting for my 60th. And most came from around the world for a meeting in Raumati. You never know what effect you have on people. Long ago I was asked what I found most rewarding in research and my answer was “effecting change.” It was so nice to find I had some influence.
8. Thus I thank my co-authors. I would especially like to thank Mike Fellows (with whom I invented parameterized complexity) Denis Hirschfeldt (from U Chicago, who suffered thru the Randomness Book) and Noam Greenberg (who suffered thru the Hierarchies book).
9. Many thanks to some really staunch supporters Rob Goldblatt, Vaughan Jones, Chong Chi Tat (Singapore), Anil Nerode (Cornell, in spite of his advice “But now you must come to the US”), Angus Macintyre (Queen Mary), and Gaven Martin (Massey Albany).
10. Finally, of course the principal thanks is reserved for my wife Kristin. Last year I wrote a dance for her: My Golden Bear and she really is. 42 years with me shows remarkable tolerance. It is not an easy thing to be a partner to someone with a sufficiently obsessive personality to be a successful scientist; especially one who has travelled a lot. Bad things always seemed to happen when I was away, especially to the kids. Thanks my bear.
11. And thank you all.