



# Communications

## Royal Medal for Rodney Baxter

Rodney Baxter FRS, Emeritus Professor at the Mathematical Sciences Institute at ANU, has been awarded the Royal Society's 2013 Royal Medal for 'his remarkable exact solutions of fundamental models in statistical mechanics'.

King George IV founded the Royal Medals in 1825. Each year now, three medals are awarded for the most important contributions in the physical, biological and applied sciences, by citizens or residents of Commonwealth countries and the Irish Republic. Also known as the Queen's Medals, they are awarded annually by the Sovereign on the recommendation of the Council of the Royal Society. The three medals are of silver gilt and are accompanied by a gift of £5 000.



The list of former recipients speaks for itself. Amongst them you will find: Andrew Wiles, Simon Donaldson, Roger Penrose, Abdus Salam, Francis Crick, Michael Atiyah, Subrahmanyan Chandrasekhar, Paul Dirac, Lord Rayleigh, JJ Sylvester, Arthur Cayley, Michael Faraday, George Boole and John Herschel.

Exactly solved models play an important role in equilibrium statistical mechanics, particularly their behaviour near a critical point or phase transition, as this is where previous approximate theories can fail dramatically.

Professor Baxter is single-handedly responsible for solving exactly an impressive collection of two-dimensional lattice models, by generalising the Bethe ansatz method. In particular, the Hard Hexagon Model helps to explain accurately how helium is absorbed into graphite.

He remains active, despite having officially retired from ANU in 2003 after almost 35 years of service. As he said to the ANU Reporter, he was very pleased to receive the news, which he almost mistook for junk mail:

The news came in the form of a letter from the Royal Society and when I saw it on my desk I just put it in my pocket thinking 'oh, it's just another circulation'. So I was carrying it around for a couple of hours before I actually read it.

The Awards presentation will take place in November, at the Royal Society headquarters in London, where he was admitted as a Fellow in 1982.