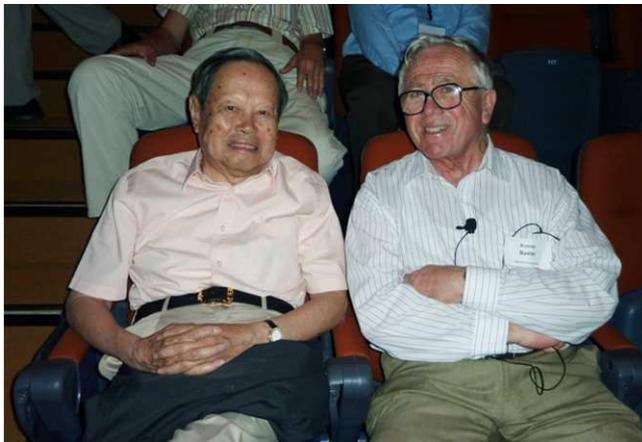


StatPhys24 conference Cairns 19–23 July, 2010

Jan de Gier* and Jon Links**

StatPhys is a series of conferences on statistical physics that take place every three years. StatPhys24¹ was held in Cairns, from 19–23 July 2010, and was only the second time a StatPhys meeting was held in the southern hemisphere. StatPhys24 attracted around 550 participants, and was generously supported by the Australian Mathematical Society, the Australian Mathematical Sciences Institute and the ARC Centre of Excellence for Mathematics and Statistics of Complex Systems, as well as by the University of Queensland, the Australian National University and the University of Melbourne, among others.



Chen-Ning Yang and Rodney Baxter.

The StatPhys conference covers a wide range of topics, ranging from rigorous mathematical results in modern probability theory and solvable lattice models in statistical mechanics, to quantum condensed matter systems, biological physics, disordered systems and econophysics. This results in a fruitful and refreshing mix of ideas, and provides an excellent opportunity for mathematicians and mathematical physicists to engage with more applied-minded people.

StatPhys24 enjoyed the attendance of two Nobel Prize winners in physics, Chen-Ning Yang and Wolfgang Ketterle, as well as a Fields Medallist, Michael Freedman.

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Yang's name is also well known to mathematicians, as it is associated with the Clay Millennium problem on the mass gap for the quantum Yang-Mills field theory. The conference offered an exciting outlook on the future. Mathematical highlights included talks on enumerative geometry by Bertrand Eynard and the AdS/CFT correspondence (anti-de-Sitter space/conformal field theory correspondence) by Subir Sachdev in quantum condensed matter systems, among others. The conference was also a celebration of the past, with a historical reunion of Rodney Baxter and Chen-Ning Yang, whose names are linked via the well-known Yang-Baxter equation.

At each StatPhys conference, the prestigious Boltzmann Medal is awarded to scientists who obtain new and remarkable results in statistical physics. This time, the medal was awarded to

John Cardy, *for his numerous seminal contributions to two-dimensional critical phenomena in statistical physics, including the development and application of conformal field theory, finite-size effects and percolation.*

Bernard Derrida, *for his major contributions to the understanding of disordered and of out-of-equilibrium systems, in particular through the random energy model, and through his breakthroughs in the asymmetric exclusion model.*



John Cardy and Bernard Derrida.