

Geometric issues in the foundation of science

Oxford 1996

As many readers know, the above conference took place last June and was deemed a success. Roger Penrose, looking impossibly young for his 65 years, managed to attend *all* the talks, including those in the parallel sessions — without apparent recourse to the many-world thesis!

The proceedings of this conference will be published by the Oxford University Press. The intended content is listed below.

Plenary talks

- A. Ashtekar: *Geometric issues in quantum gravity*
- M.F. Atiyah: *Roger Penrose, a personal reminiscence*
- A. Connes: *Gravity coupled with matter and the spectral action principle*
- S.K. Donaldson: *Quantum field theory and four manifold topology*
- A. Ekert: *From quantum code-making to quantum code-breaking*
- H. Friedrich: *The Einstein equations and conformal structures*
- S. Hameroff: *Is consciousness a self-organizing process in fundamental space-time geometry? The microtubule connection*
- S.W. Hawking: *Loss of information in black holes*
- N.J. Hitchin: *Geometry of the space of framings*
- C.R. LeBrun: *On 4-dimensional Einstein manifolds*
- R. Penrose: *Twistor theory: whence and whither?*
- D.W. Sciama: *Decaying neutrinos and the geometry of the universe*
- G.B. Segal: *Generalisations of manifolds*
- A. Shimony: *Physical implications of objective transiency*
- P. Steinhardt: *Penrose tilings and quasicrystals revisited*
- G. Veneziano: *Quantum-geometric origin of all forces in string theory*
- R.S. Ward: *Integrable systems and twistors*

Parallel sessions

Quantum theory and beyond

A. Hodges, L. Hughston, L. Kauffman, L. Smolin

Geometry and gravity

B. Carter, G. Gibbons, E. Newman, G. Sparling

Fundamental questions in quantum mechanics

J. Anandan, M. Berry, R. Jozsa, L. Vaidman

Mathematical aspects of twistor theory

T. Bailey, S. Merkulov, S. Gindikin, A. Trautman

For further information, please contact us at: geom96@math.ox.ac.uk or Geometric Issues 96, Mathematical Institute, 24-29 St. Giles', Oxford OX1 3LB, United Kingdom.