

Sommerfeld Theory Colloquium

Wednesday, 4th May 2005

at 11.15 h

room 349, Theresienstr. 37 / III

Prof. Brandon Carter
Observatoire de Paris-Meudon

“Entropic Principle”

Everett's proposal for overcoming the lack of objectivity in the original Copenhagen interpretation of quantum theory – by working with a global, effectively deterministic, quantum state of the universe – has engendered controversy about the role of subjective probability in its interpretation. To obtain the required reconciliation of subjectivity with objectivity the concept of a physical an observer has to be distinguished from that of a conscious preceptor, whose chances of identification with a particular observer needs to be prescribed by a suitable weighting principle. It is proposed that this should be done by an entropy ansatz according to which the relevant micro-anthropic weighting is taken to be proportional to the logarithm of the relevant number of Everett type branch-channels.