NEW Gravity and Its AdS/CFT Correpondence

Tuesday 21 February 2012 20:50 (20 minutes)

We explore four-dimensional Einstein-Weyl gravity and supergravity on anti-de Sitter spacetime. For a specific range of the coupling with appropriate boundary conditions, we show the effective equivalence of the theory with Einstein gravity and AdS supergravity at the quadratic Lagrangian level. Furthermore we show that these equivalences can be promoted to the full nonlinear level. We also show that the similar behavior holds for the generalized Gibbons-Hawking terms. From this we find that the correlation functions in the dual conformal field theory of Einstein-Weyl gravity and supergravity can be readily read off from corresponding ones from Einstein gravity and AdS supergravity. We also give comments on some issues in critical gravity and supergravity as well as conformal gravity and supergravity.

Presenter: Mr JANG, Wooje (Yonsei U.)

Session Classification: Parallel: S2