

# Sommerfeld Theory Colloquium

**Wednesday, 8<sup>th</sup> June 2005**

at 11.15 h

room 349, Theresienstr. 37 / III

**Prof. Juan Maldacena**

**Institute for Advanced Study, Princeton**

**QCD, strings and black holes:  
The Large N limit of field theories and gravity**

We study Yang Mills theories with a large number of colors. In this limit the theory becomes a theory of strings. We describe the string theory associated to the most supersymmetric version of Yang Mills theory. These strings live in a ten dimensional curved space. This leads to interesting connections between quantum gravity and QCD-like theories. For example, confinement is related to black holes.