



SFB-Seminar "Supergravity and Color/Kinematic Duality" (Research Project C6)

TIME:

8 Dec 2015, 15:00 - 18:00

LOCATION:

PROGRAM:

15:00 - 15:30 Coffee Break

15:30 - 16:30 **Dr. Mahdi Godazgar (University of Cambridge)**

Supergravity, consistent reductions and uplifts

I will explain the concept of consistent reductions and uplifts for gravitational theories and discuss recent progress in understanding consistent reductions in supergravity by exploiting duality symmetries.

16:30 - 17:00 Coffee Break

17:00 - 18:00 **Dr. Donal O'Connell (University of Edinburgh)**

Classical squaring relations between gauge theory and gravity

Tree level scattering amplitudes in gravity can be written as squares of gauge theoretic amplitudes, reflecting the structure of closed and open string theory. In recent years, this understanding has been developed and broadened. We have hints of the existence of some "kinematic" algebraic structure underlying the squaring relations, as well as new squaring relationships between classical field backgrounds. I will discuss the kinematic algebra in the self-dual sector of gauge theory and gravity, before describing certain special solutions of gauge theory and gravity which square into one another.

Contact:

Humboldt-Universität zu Berlin . Institut für Mathematik
SFB 647 . Unter den Linden 6 . 10099 Berlin
Tel. +49 30 2093 1804 . Fax. +49 30 2093 2727
sfb647@math.hu-berlin.de

www.raumzeitmaterie.de