



SFB-Seminartag

TIME:

5th June 2007, 4:00 – 7:00 pm

LOCATION:

Humboldt-Universität zu Berlin
Invalidenstraße 42, Nordbau, Hörsaal 8

PROGRAM:

4:00 – 5:00 pm **AXEL KLEINSCHMIDT** (AEI)

Kac-Moody symmetries in M-theory

This talk will give an overview of an endeavour to characterise the structure of supergravity or even M-theory by means of its underlying symmetry. Collecting results from different studies suggests that the indefinite Kac-Moody algebra E_{10} plays a prominent role in this algebraic description of M-theory. I will review the evidence for this claim and present the way E_{10} is believed to control the dynamical properties of M-theory.

5:00 – 5:30 pm Break/ Kaffeepause

5:30 – 6:30 pm **MARCUS BERG** (AEI)

Four-dimensional orientifold physics

I will give an overview of the state of the art of D-brane gauge coupling computations and Kaehler metric computations in string theory orientifold models. This type of calculation involves interesting interplay between worldsheet geometry, spacetime geometry and field space geometry. Applications range from inflationary cosmology to particle phenomenology.

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