



EINLADUNG

im Rahmen des Seminars für Mathematische Physik

zum Vortrag

von

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über

***„Discrete Gauging and Small E_8 instantons
in six dimensions“***

Abstract:

The physics of tensionless strings in six dimensions poses a long standing challenge in theoretical physics. This talk discusses such objects in a system of multiple M5 branes places at an ALE singularity of types A or D. The world volume theory on the M5 branes has (0,1) supersymmetry in 6 dimensions with massless vector, tensor and hyper multiplets. There are two branches on the moduli space of vacuum configurations where scalar fields in tensor and hyper multiplets receive VEVs, respectively. We will focus on the Higgs branch and show that each time there is a new tensionless string, there is a new Higgs branch, thus the theory has a multitude of Higgs branches depending on the types of tensionless strings in the spectrum.

There are two main effects: “discrete gauging” and “small instanton transitions” and a need to efficiently describe so many Higgs branches which arise. The main tool is the Coulomb branch of 3d $N=4$ gauge theories, which Marcus, the local expert, has been studying intensively.

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