



EINLADUNG

im Rahmen des Seminars für Mathematische Physik

zum Vortrag

von

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über

***„Intersecting branes, Higgs sector, and chirality
from $N=4$ SYM with soft SUSY breaking“***

Abstract:

4-dimensional $SU(N)$ $N=4$ super Yang-Mills supplemented by a certain cubic and quadratic soft SUSY breaking potential supports a rich set of non-trivial vacua with the geometry of self-intersecting $SU(3)$ branes in 6 extra dimensions. The zero modes on these branes can be interpreted as 3 generation of bosonic (called "Higgs") and chiral fermionic strings connecting the branes at their intersection. After an introduction of the setup, I discuss a new class of exact solutions consisting of branes connected by Higgs condensates, leading to Yukawa couplings between chiral fermionic zero modes. A certain decoupling condition ensures that the backreaction of the Higgs on the branes vanishes, and the resulting physics is that of a spontaneously broken chiral gauge theory on branes with fluxes.

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