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I N V I T A T I O N

as part of the Mathematical Physics Theory Seminar

to the talk by

Johanna KNAPP
(University of Melbourne)

on

"B-branes in hybrids and GLSMs"

Abstract:

We consider type II string theory on Calabi-Yau threefolds with B-type D-branes. Hybrid models appear in limiting regions of the stringy Kahler moduli space of the Calabi-Yau. They are Landau-Ginzburg models fibred over a compact base manifold. We give a physics derivation of B-type D-branes in hybrids and show that they are matrix factorisations of the hybrid superpotential, combined with geometric data associated to the base. Lifting these branes to the gauged linear sigma model (GLSM) and making use of the GLSM hemisphere partition function, we establish a connection between geometric and hybrid branes. As an application, we discuss a hybrid model that shares the moduli space with a well-known two-parameter Calabi-Yau hypersurface.
This is joint work with Robert Pryor.

Time: Tuesday, 1 April 2025, 2:00 p.m.

Location: Erwin-Schrödinger Lecture Hall, 1090 Vienna, Boltzmanngasse 5, 5th floor

sgd. S. Fredenhagen, M. Sperling