Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

Dienstag, 24. Mai 2016

17 Uhr s.t., Geom H4

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Mirror Symmetry and BPS Quivers

Abstract:

Mirror symmetry identifies deformation families of different Calabi-Yau manifolds mapping the symplectic geometry of one family to the complex geometry of the other. I will discuss the original matching of variation problems on both sides, some of its extensions as well as an identification of objects in categories attached to both sides. To this end, I will describe what a BPS quiver is and how it can be assigned to deformation families of physical theories. These theories are obtained geometrically using two different string theories on two mirror families of Calabi-Yau threefolds. The quivers encode generating sets of special objects on both sides corresponding either to stable coherent sheaves or to special Lagrangian submanifolds. Quiver representation theory together with a physically motivated stability condition encodes the spectra of these special objects and their wall-crossing behavior in moduli space.

Vor dem Vortrag (ab 16.30 Uhr) stehen im Raum 327 Kaffee und Tee bereit.