

Speaker: Albecht Klemm

Title: Non-perturbative topological string on compact Calabi-Yau 3 folds

Abstract: New boundary conditions using D4-D2-D0 brane BPS indices and Wall crossing formulas relating the latter to Donaldson-Thomas, Pandharipande-Thomas and Gopakumar Vafa invariants as well study of these invariants on non-commutative Calabi-Yau resolutions allow to solve the topological string to very high genus. These high order perturbative results are used to confirm and extend analytic results based on resurgence techniques and in particular a transseries solution of the holomorphic anomaly equations.