

Quantum Geometry of Calabi-Yau manifolds from GLSM

Thursday 14 August 2014 14:00 (1 hour)

I discuss the power of gauge theory techniques in the context of gauged linear sigma models (GLSMs) with Calabi-Yau manifolds as their target spaces, so as to analyze the string quantum geometry of Calabi-Yau manifolds, arising from perturbative and non-perturbative string worldsheet corrections. The former corrections are associated to a certain characteristic class of the Calabi-Yau target space, which arises naturally in the GLSM picture. The latter corrections correspond to Gromov-Witten invariants of the target space. I briefly comment on higher genus Gromov-Witten invariants for Calabi-Yau threefolds.

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