

# String theory on Determinantal Calabi-Yau Manifolds

*Thursday 27 September 2012 14:30 (30 minutes)*

String compactifications and string model building have mainly been pursued on Calabi-Yau manifolds of a certain type: complete intersections in toric varieties. A powerful tool to study such Calabi-Yau manifolds is provided by the two-dimensional gauged linear sigma model with abelian gauge groups. In this talk I consider gauged linear sigma models with non-abelian gauge groups so as to describe the propagation of strings on determinantal Calabi-Yau manifolds, which furnish another broad class beyond complete intersection Calabi-Yau geometries. I demonstrate that the presented techniques provide a direct and powerful method to compute the spacetime Kähler potential exact in  $\alpha'$ .

Calabi-Yau threefolds and for determinantal Calabi-Yau threefolds

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