

Painlevé/Gauge theory correspondence on the torus

Monday, 10 June 2019 10:30 (30 minutes)

In the last few years there have been many new results connecting (linear quiver) $N=2$ class S theories, and the topological strings that engineer them, to the theory of isomonodromic deformations on the sphere and their q -deformations.

The aim of this talk is to show how this connection can be extended beyond the case of genus zero, which corresponds to circular quiver gauge theories, including adjoint hypermultiplets in the description. We will see how the genus one case displays new qualitative features that are absent on the sphere, due to the possibility of various inequivalent vector bundles, and how this actually provides new interesting relations satisfied by the 4d all genus Topological String partition function.

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