D-Branes on Group Manifolds

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Abstract

In the talk we will discuss D-branes in group manifolds. We will discuss how D-branes appear in (boundary) conformal field theory and will we solve for the geometry of the D-brane by analysing the Wess–Zumino–Witten model with boundary. The data defining a boundary WZW model presents some superficial yet intriguing similarities with the moduli space of flat bundles on punctured complex curves.

We will contrast D-branes on group manifolds with the better understood case of D-branes in Calabi–Yau 3-folds, whose study has given us a new window on mirror symmetry. Understanding the simpler geometry of D-branes in group manifolds, may yield further insights in this case.