

Non-perturbative topological strings: a simple case study

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The talk is about a very general mathematical program which aims to use stability conditions and Donaldson-Thomas invariants to obtain a geometric, non-perturbative understanding of the topological string partition function. So far this has only been made to work in some very simple examples. I will focus on one such example, and will begin by describing an associated geometric object called the the Joyce structure. I will then sketch how this gives rise to both non-perturbative and perturbative partition functions.