Non-perturbative topological strings
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I present a concrete non-perturbative proposal for topological string theory on general toric Calabi-Yau threefolds, based on a large N duality with a quantum mechanical model in one dimension. I also present evidence that, in this proposal, the non-perturbative free energy of the topological string can be written as the Borel-Ecalle resummation of a trans-series. The non-perturbative effects appearing in this trans-series can be obtained by extending the holomorphic anomaly equation to the non-perturbative sector.