

Abstract

We define enumerative invariants associated to a hybrid Gauged Linear Sigma Model. We prove that in the relevant special cases these invariants recover both the Gromov–Witten type invariants defined by Chang–Li and Fan–Jarvis–Ruan using cosection localization as well as the FJRW type invariants constructed by Polishchuk–Vaintrob. The invariants are defined by constructing a “fundamental factorization” supported on the moduli space of Landau–Ginzburg maps to a convex hybrid model. This gives the kernel of a Fourier–Mukai transform; the associated map on Hochschild homology defines our theory.