

Research Talk: DT Invariants and Holomorphic Curves

vendredi 9 juin 2023 14:00 (1 heure)

Kontsevich and Soibelman suggested a correspondence between Donaldson-Thomas invariants of non-compact Calabi-Yau 3-folds and holomorphic curves in complex integrable systems. After reviewing this general expectation, I will present a concrete example related to mirror symmetry for the local projective plane (partly joint work with Descombes, Le Floch, Pioline), along with applications in enumerative geometry (partly joint work with Fan, Guo, Wu). I will end by an “explanation” of the general correspondence based on the physics of N=2 4d quantum field theories and holomorphic Floer theory.

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