

Jun Li: Mixed-Spin-P fields and algorithm to evaluate GW and FJRW invariants of quintic CY manifolds

The theory of Mixed-Spin-P fields is a geometric theory realizing the wall crossing between GW and FJRW invariants of the Fermat quintic. Using cosection localized virtual cycles, MSP invariants are defined, along with a collection of vanishings.

Using virtual localization, these collection provides polynomial relations among all genus GW invariants of the quintic CY threefolds and the FJRW invariants of the Fermat quintic. These relations are conjectured to determine the GW invariants of the quintics and the FJRW of the Fermat quintic. This is a joint work with HL Chang, WP Li and CC Liu.