

Descendent transformations in Donaldson-Thomas wall-crossings

Tuesday 7 October 2025 10:00 (1 hour)

In recent work with Nick Kuhn and Felix Thimm, we proved a Joyce-style “universal” wall-crossing formula for certain equivariant moduli problems of 3-Calabi-Yau type, including Donaldson-Thomas theory. An immediate and productive question is how tautological classes like descendents transform under such wall-crossings. I will present an explicit descendent transformation formula for the Donaldson-Thomas/Pandharipande-Thomas wall-crossing of equivariant vertices, explain how the computation works, and speculate on how it may be generalized. This serves as a fairly down-to-earth example of how such wall-crossing formulas may be applied.

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