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Title: Cornering and Substitution Formulae in the McKay Correspondence

Abstract: The McKay correspondence establishes an equivalence between the equivariant geometry of a Kleinian singularity and the geometry of its minimal resolution. A procedure known as cornering on the equivariant side corresponds to taking only certain partial resolutions.

In this talk we will see how a Kleinian orbifold and its Hilbert scheme of points collapse into the cornered algebra and its moduli space of representations, and how one can describe the fibers of this map. In type A this process has an attractive combinatorial description by diagonally coloured Young diagrams. We will use this description to show how one can calculate the generating function of Euler characterics of the cornered moduli spaces through an intricate substitution of variables from the generating function for the smooth equivariant Hilbert scheme.