

Samuel BOISSIÈRE (Université de Nice)

The McKay correspondence for polyhedral singularities

Let G be a polyhedral group, namely a finite subgroup of $SO(3)$. Nakamura's G -Hilbert scheme provides a preferred resolution of singularities Y of \mathbb{C}^3/G . The McKay correspondence describes the geometry of Y in terms of the representation theory of G . Let $\tilde{G} \subset SU(2)$ be the binary version of G and X the minimal resolution of \mathbb{C}^2/\tilde{G} . I will present a beautiful compatibility between the McKay correspondences for X and Y : a map from X to Y contracting exactly those exceptional curves which correspond to representations of \tilde{G} not coming from representations of G .

This is a joint work with Alessandra Sarti.