

Minimal models of symplectic quotient singularities

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Namikawa associated to any conic symplectic singularity a hyperplane arrangement which is deeply intertwined with its geometry. For example, Bellamy proved that for a symplectic quotient singularity the cohomology of the complement of this arrangement encodes the number of minimal models of the singularity. For the symplectic singularity associated to a complex reflection group we were able to prove that the Namikawa arrangement coincides with the degeneracy locus of the number of torus fixed points of the corresponding Calogero-Moser deformation. This has a series of nice consequences, especially it proves a conjecture by Bonnafé and Rouquier. Using representation theory and elaborate computer algebraic methods, we could compute this arrangement explicitly for several exceptional complex reflection groups. The arrangements seem to be of a new kind, and many more are out there. This is joint work with Gwyn Bellamy (Glasgow) and Travis Schedler (London), and with Cédric Bonnafé (Montpellier).