

1096-15-1325

Graham Denham, Mehdi Garroubian* (mgarrou@uwindsor.ca) and **Stefan Tohaneanu.**

Arrangements with quadratic complete intersection Orlik-Terao algebras.

The Orlik-Terao algebra of an arrangement is the coordinate ring of the reciprocal compactification of the arrangement complement and provides a commutative analog of the Orlik-Solomon algebra. In the presence of a modular flat, we obtain a decomposition of the OT algebra into the OT algebras of the localization and the fiber arrangement. Consequently, when the arrangement is supersolvable, the OT algebra is Koszul and in fact G-quadratic. Furthermore, we refine this result by giving combinatorial characterizations of the quadratic complete intersection property. (Received September 14, 2013)