1003-14-1465   **Raymond Curran*** (`curran@math.umass.edu`), 54 West Street, #4, Northampton, MA 01060.
Gale Duality and Specializations of the A- Discriminant. Preliminary report.

A configuration A of n points in $\mathbb{Z}^d$ gives rise to a toric variety X_A and the associated A- Discriminant, D_A. I use Gale duality to reveal certain factors of specializations of D_A, which are important in the classification of rational hypergeometric functions, as in [1]. One immediate application is a Gale dual description of when the A- Discriminant is trivial; i.e. the dual variety has codimension greater than one, generalizing a result in [2] to varieties X_A of codimension 3 and 4.

References

[1] E. Cattani and A. Dickenstein: Planar configurations of lattice vectors and GKZ-rational toric fourfolds in $\mathbb{P}^6$. *J. Algebraic Combin.* **19** (2004) 47–65.

[2] A. Dickenstein and B. Sturmfels: Elimination theory in codimension 2. *J. Symbolic Comput.* **34** (2002) 119–135.

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