

## **Remarks on Lagrangian intersections in toric manifolds**

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### **Abstract:**

I will consider two natural Lagrangian intersection problems in the context of symplectic toric manifolds: displaceability of torus orbits and of a torus orbit with the real part of the toric manifold. The remarks address the fact that one can use simple cartesian product and symplectic reduction considerations to go from basic examples to much more sophisticated ones. I will show in particular how rigidity results for the above Lagrangian intersection problems in weighted projective spaces can be combined with these considerations to prove analogous results for all monotone toric symplectic manifolds. We also discuss non-monotone and/or non-Fano examples, including some with a continuum of non-displaceable torus orbits. This is joint work with Leonardo Macarini.