

Real Lagrangian submanifolds in toric symplectic del Pezzo surfaces

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We explore the topology of real Lagrangian submanifolds in toric symplectic del Pezzo surfaces using symmetries of polytopes. We explain the real Delzant construction, a real analogue of the Delzant construction, which depicts real Lagrangians coming from symmetries of Delzant polytopes. In particular, we completely determine the diffeomorphism types of connected real Lagrangians in toric symplectic del Pezzo surfaces. This is joint work with Joé Brendel and Joontae Kim.