

7/24 [Michael Wemyss] Tits Cone Intersections and Applications

I will explain some new structures that can be obtained from ADE Dynkin diagrams, which visually are very beautiful, and have some surprising applications to both two-dimensional and three-dimensional algebraic geometry. Most of the talk will explain how to construct these new objects, and will explain some of the combinatorial results that we can prove about them. I will then highlight briefly some (new!) applications to Kleinian singularities, and also some applications to 3-fold flopping contractions through mutation and stability conditions. This is joint work with Yuki Hirano, and with Osamu Iyama.