

Geometry of canonical Fano threefolds

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Abstract

From the minimal model program, it is known that the class of mildly singular (terminal, canonical, or klt) Fano varieties is one of the building blocks for the birational classification of projective varieties, and it is of fundamental interest to understand the explicit geometry of them. The classification of smooth Fano manifolds of dimension no more than three has been completed after the work of the Italian school, Iskovskih, Shokurov, Mori, and Mukai. In this talk, we discuss some recent progress and problems about extending the classification to canonical Fano threefolds.