

The anticanonical class is probably one of the most natural objects associated with a Fano variety, since it "embodies" many geometric aspects of the ambient space. In this talk I will focus on Fano fourfolds with large anticanonical base locus, i.e. of dimension two, and will present the known examples. The aim is to discuss a new result on the anticanonical system of Fano fourfolds: if the base locus is a normal irreducible surface, then all of its members are singular. At the end, I will mention a follow-up work in progress. Joint work with Andreas H\"oring.