BOUNDEDNESS RESULTS IN BIRATIONAL GEOMETRY

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Abstract: The Minimal Model Program (MMP) is one of the main tools in the classification of higher dimensional algebraic varieties. Given a projective variety X, the goal of the program is to produce, with elementary surgeries, a new variety Y with better properties. We call Y a *minimal model* for X. After it is established that a minimal model exists, it is natural to ask whether this minimal model is unique, and if not how many there are and how do they behaved in familes. I plan to give a gentle introduction to the main ideas in the MMP focusing on the previous questions.