GOOD MODULI SPACES, POSITIVITY AND RATIONALITY

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Abstract. This course will be an introduction to the theory of good moduli spaces (in the sense of Alper). We will generalize filtrations from a vector space to an algebraic variety, define theta-reductivity, S-completeness, and unpuncturedness of inertia. Examples will include good moduli spaces for Deligne-Mumford stable curves, and K-semistable Fanos, with the focus on the cases where there is a positive tautological line bundle and the good moduli space is particularly simple, i.e., rational.

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