Geometry, Physics, and Representation Theory Northeastern University

Weighted Compactifications of Configuration Spaces

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Abstract. In the early 90's, Fulton and MacPherson provided a natural and beautiful way of compactifying the configuration space F(X, n) of n distinct labeled points in an arbitrary nonsingular variety. In this talk, I will present an alternate compactification of F(X, n), which generalizes the work of Fulton and MacPherson. The construction that I will introduce is parallel to Hassett's weighted generalization of the moduli space of n-pointed stable curves. After discussing the main properties of this new compactification, I will give a presentation of its intersection ring and as an application, I will describe the intersection ring of Hassett's spaces in genus 0.