Kenneth Ascher* (kascher@mit.edu) and Dori Bejleri. Compactifying the moduli space of degree one del Pezzo surfaces via elliptic fibrations.

Stable pairs and KSBA moduli form the generalization of the Deligne-Mumford moduli space of stable curves in higher dimensions. In this talk I will describe a stable pairs compactification of the moduli space of degree one del Pezzo surfaces. We use the close relation between degree one del Pezzo surfaces and rational elliptic surfaces to construct this space as a limit of a space of weighted stable elliptic surfaces. We will also discuss the relationship to GIT compactifications of moduli of rational elliptic surfaces. This is joint work with Dori Bejleri. (Received February 04, 2018)