11th ALGA Meeting

Maresias, São Paulo, from 10/16 to 10/22.

Speaker: Sebastian Casalaina-Martin (U. Colorado, USA)

Title: The local structure of compactified Jacobians

Abstract: In this talk I will describe the local structure of the compactified Jacobian of a stable curve in terms of invariants of the dual graph of the curve. Recall that for a stable curve, the Jacobian parameterizing line bundles of a fixed (multi)degree may not be compact. There are a number of ways to compactify these spaces; in this talk I will focus on the methods due to Oda-Seshadri, Simpson, Caporaso, and Pandharipande that are based on considering various stability conditions for rank one, torsion-free sheaves. I will describe the local structure of the resulting compactified Jacobians in terms of mini-versal deformation spaces, and in particular, I will describe "easy recipes" for determining local geometric invariants of a compactified Jacobian from invariants of an associated dual graph. This is joint work with Jesse Kass and Filippo Viviani.