

Compactified Jacobians of curves with spine decompositions

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A curve, that is, a connected, reduced, projective scheme of dimension 1 over an algebraically closed field, admits two types of compactifications of its (generalized) Jacobian: the moduli schemes of P-quasistable torsion-free, rank-1 sheaves and Seshadri's moduli schemes of S-equivalence classes of semistable torsion-free, rank-1 sheaves. Both are constructed with respect to a choice of polarization. The former are fine moduli spaces, and we will show that they are projective. The latter are just coarse moduli spaces. We will give a sufficient condition for when these two types of moduli spaces are equal.