

CLUSTER ALGEBRAS SEMINAR

Speaker: Chris Ormerod
University of Maine

Date: Monday, November 21, 2016

Time: 4:00 PM

Location: 258 Hurley Hall



Lecture Title:

Integrable mappings from polygons

Abstract

Starting with polygons arising from the Jacobians of tropical genus one curves, we will show how the group of piece-wise linear transformations that preserve the form of these curves are reflection groups of Affine Weyl type. The infinite order elements (translations) define piece-wise linear mappings that possess tropical biquadratic curves as first integrals. These may be interpreted as integrable mappings that map from polygons to polygons. We are able to interpret these mappings in terms of the tropical group law on tropical elliptic curves.