

**Stony Brook University
The Graduate School**

Doctoral Defense Announcement

Abstract

The Effective Cone on Symmetric Powers of Curves

By

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The d th symmetric power C_d of a smooth complex projective curve (or compact Riemann surface) C is a parameter space for effective divisors of degree d on C , so that the theory of degree- d maps from C to projective space is encoded in the subvarieties of C_d and the relations amongst them. We give a complete description of the cone of codimension-1 subvarieties of $C_{(g-1)}$ when C is a general curve of genus g at least 4, as well as new bounds for the case C_d in the range $[(g+1)/2, g-2]$. We also give new information on the movable cone and volume function of $C_{(g-1)}$.

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Dissertation Advisor: Sorin Popescu

Place: Math Tower 5-127