

SCMS Seminar



CYCLIC COVERS OF STABLE CURVES AND THE MODULI SPACES

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Time: 8:50 am - 9:20 am, Friday, October 19, 2018

Venue: Room 102, Shanghai Center for Mathematical Sciences

Abstract:

We study the deformation of G -marked stable curves in the case where G is a cyclic group, and construct a parameterizing space for G -marked stable curves of a given numerical type.

This is then used in order to study the components of the locus of stable curves admitting the action of a cyclic group of non prime order d , extending work of F. Catanese in the case where d is prime. The main tools we use here are Teichmüller theory and the deformation of G -marked curves.

$$\Delta y_i = \int_{x_i}^{x_{i+1}} y' dx - \left(\sum_{j=1}^{i-1} a_{ij} x_j^{(k)} + \sum_{j=i+1}^n a_{ij} x_j^{(k)} \right)$$
$$\int_{x_k}^{x_{k+1}} f(x, y) dx = \int_{x_k}^{x_{k+1}} y' dx = y(x)$$
$$-\sqrt{(y_n + 0.5\tau k_1)^2 + (t_n + 0.5\tau)^2}$$