



FMSP Lectures

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Lectures on quantum Teichmüller theory

January 9 (Thu), 10 (Fri), 14 (Tue), 15 (Wed)

14:50 ~ 16:20 Room 056

Abstract:

Quantum Teichmüller theory leads to a family of unitary infinite dimensional projective representations of the mapping class groups of punctured surfaces. One of the recent applications of this theory is the construction of state integral three-manifold invariants related with hyperbolic geometry.

In these lectures it is planned to address the following subjects:

- 1) Penner's coordinates in the decorated Teichmüller space.
- 2) Ratio coordinates.
- 3) Quantization.
- 4) The length spectrum of simple closed curves.