



复旦大学数学科学学院 数学综合报告会

报告题目: Classification of Teichmuller curves generated by Prym eigenforms

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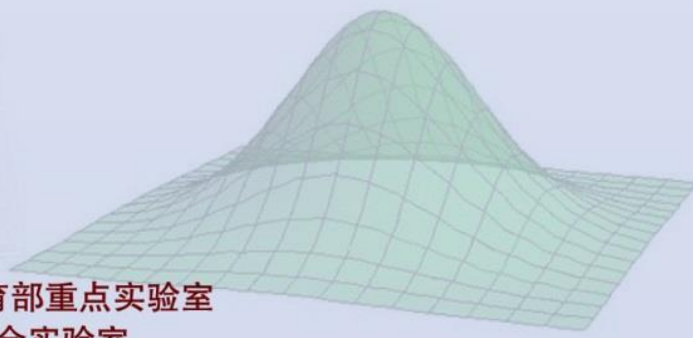
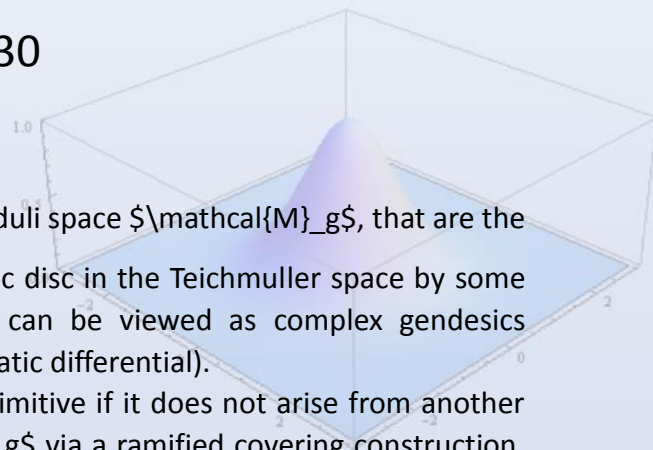
(Université de Bordeaux)

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地点: 光华东主楼 1501

摘要: Teichmuller curves are algebraic curves in the moduli space \mathcal{M}_g , that are the projections of Teichmuller discs, images of the hyperbolic disc in the Teichmuller space by some holomorphic isometric embeddings. Teichmuller discs can be viewed as complex gendesics generated by pairs (Riemann surface, holomorphic quadratic differential).

A Teichmuller curve in \mathcal{M}_g is said to be primitive if it does not arise from another Teichmuller curve in some \mathcal{M}_h with $h < g$ via a ramified covering construction. While the union of all Teichmuller curves is dense in \mathcal{M}_g , those that are primitive are quite rare. For each $g \in \{2, 3, 4\}$, McMullen discovered an infinite family of primitive Teichmuller curves generated by pairs (Riemann surface, quadratic differential), where the quadratic differentials are the square of some special holomorphic 1-forms called Prym eigenforms. The aim of this talk is give an introduction to the subject, and an account of the classification of those Teichmuller curves.



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