ミニワークショップ

「曲面の幾何 (Geometry of Surfaces)」

Date : 2019 May 30th Afternoon

Venue : 60-303 at Nishi-Waseda Campus

Program   (13:30-17:30):

13:30 – 14:30
Speaker : Hidetoshi Masai (Tokyo Institute of Technology)
Title : On the Continuity of Drifts of Mapping Class Groups

Abstract : When a group is acting on a space isometrically, we may consider the "translation distance" of random walks, which is called the drift.   In this talk, we consider the mapping class group acting on theTeichmüller space. Then we discuss if the drift varies continuously with the transition probability measures.

14:30 – 14:45   Tea Break

14:45 – 15:45
Speaker : Toru Kajigaya (Tokyo Denki University)
Title : Uniformizing Surfaces via Discrete Harmonic Maps

Abstract : We show that for any closed surface of genus greater than one and for any finite weighted graph filling the surface, there exists a hyperbolic metric which realizes the least Dirichlet energy harmonic embedding of the graph among a fixed homotopy class and all hyperbolic metrics on the surface. We also give explicit examples of such hyperbolic surfaces as a refinement of the Nielsen realization problem for the mapping class groups.

15:45 – 16 : 00   Tea Break

16:00 – 17:30

Speaker : Greg McShane (Institut Fourier)

Title : Length Estimates for Simple Closed Curves

Abstract : Estimating the lengths of closed curves is important in the deformation theory of manifolds.   There are many examples :
- the collar lemma
- Culler Shalen inequality
- the Schwarz lemma
We will give a survey of these and relate them to recent work of Yi-Zhang on projective structures and Anderson-Borot-Orantin on geometric recursion.

18:00 – 20:00

Reception : 串衛 (KUSHIEI)　　(新宿区西早稲田 2-21-4　03-3203-9481)

* * * * * * * * * * * * * * * * * * *

世話人 ：　小島定吉 (早稲田大学)