The Second Kyushu Joint Seminar*

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$PSL(n;\mathbb{R})$ surface group representations & projective twist-bulge deformations

Kagoshima University

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Abstract

We consider projective $PSL(n;\mathbb{R})$ representations of the fundamental group of a surface with finite topology. The goal is to use generalizations of the Fenchel-Nielsen twist deformation to understand the geometry of the representation space. For $PSL(n;\mathbb{R})$ representations of compact surfaces, we review basic results for the Hitchin component, including results of Benzecri, Goldman, Labourie and Bonahon-Dreyer. We discuss the Labourie & Fock-Goncharov positivity condition for the 'flag curve'. The twist-bulge deformation for $PSL(3;\mathbb{R})$ representations is described and we present the formula of our student Terence Long for the twist-bulge derivative of a generalized cross ratio.

Venue

Lecture Room 220

Faculty of Science, Kagoshima University

1-21-35 Korimoto, Kagoshima

***This is a joint event with Colloquium of Department of Mathematics and computer Science, Kagoshima University**

About Kyushu Joint Seminar:

The idea could be traced back to many decades. Thanks to the Kyushu Shinkansen, now it becomes practically possible. We hope that the Q-semi, nick name for the KJS, would provide a common platform for these interested to act and play, with the aim to promote the mathematical activities in big Kyushu area.

The organizer committee consists of four,

Takashi Ichikawa (ichikawa@ms.saga-u.ac.jp),

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Lin Weng (weng@math.kyushu-u.ac.jp).

If you have good candidate for speaker, please feel free to contact us: It should not be bounded by our research fields. Currently, we would like to arrange the Q-semi 2-4 times a year in Kyushu area.