Abstract

In higher Teichmüller theory we study subsets of the character varieties of surface groups that are higher rank analogs of Teichmüller spaces, e.g. the Hitchin components and the spaces of maximal representations.

Fock-Goncharov generalized Thurston's shear coordinates and Penner's Lambda-lengths to the Hitchin components, showing that they have a beautiful structure of cluster variety.

Here we apply similar ideas to Maximal Representations and we find new coordinates on these spaces that give them a structure of non-commutative cluster varieties, in the sense defined by Berenstein-Rethak.

This is joint work with Guichard, Rogozinnikov and Wienhard.