

Entropy rigidity for surface group representations

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Resumo/Abstract:

We study certain representations of surface groups into $\mathrm{PSL}(d, \mathbb{R})$ which are deformations of irreducible Fuchsian representations (i.e. the so called Hitchin component). The main result I will present (joint with A. Sambarino) is that these representations verify an entropy rigidity: the entropy of such representations is bounded from above, and the maxima is only attained at genuine Fuchsian representations. I will try to introduce these components, which have several remarkable properties discovered by Labourie and what do we mean by entropy. To explain the proof in a particular case (providing a new proof of a result of Crampon) I will need to explain what an Anosov representation is and show its relation with dominated splittings (which we made explicit in a recent joint work with J. Bochi and A. Sambarino) and make use of properties of SRB measures of smooth Anosov flows.