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Title: Higher Teichmueller Spaces: from SL(2,R) to other Lie Groups

Abstract: In this talk we present various viewpoints on classical Teichmueller theory and show how they lead to different ways of studying the space of representations of the fundamental group of a surface into a Lie group. This will lead to the notion of positive representation in the case of a real split simple Lie group, (work of Hitchin, Fock- Goncharov, Labourie, Guichard, Wienhard)), to maximal, and more generally, causal representations, in the case where the group is of hermitian type. We will particularly insist on causal representations, and present some recent works concerning their geometric significance (work with Ben Simon, Hartnick, Iozzi, Wienhard)