Bern-Fribourg Graduate Seminar

a seminar for Master and PhD students

Thursday 26$^{\text{th}}$ September, 2024: 17:15 - 18:00

Room B5, Exakte Wissenschaften, Bern

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Kernels, Heisenberg groups and Hyperbolic Representations

Abstract

In the spirit of the relation between the family of kernels of conditionally negative type and the embeddings of a given set in the real Hilbert spaces, we will introduce the notion of kernels of Möbius type and we will discuss the family of functions of complex conditionally negative type. These two families play the analogous role of the kernels of negative type, but with respect to the embeddings of a given set in the boundaries of the hyperbolic spaces or in the Heisenberg groups.

Using the theory of kernels of Möbius type we will introduce a notion of deformation for isometric group representations in the hyperbolic spaces. Given a representation we will be able, by deforming it, to produce a continuum of non-equivalent hyperbolic representations.

Joint work with Nicolas Monod.