

Kernels, Hilbert spaces, Heisenberg groups and Hyperbolic spaces: deformation of isometric representations.

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Abstract

In this talk we will present a set of tools that allow us to deform isometric group representations into new non-equivalent ones. To do so, we will introduce the *kernels of real negative type*, *complex negative type* and *hyperbolic type*. These are families of functions that are associated to the isometric group representations. By deforming these functions one can obtain interesting results regarding representations of groups on the aforementioned metric spaces.

Joint work with Nicolas Monod.