

Im Oberseminar

Deformationsquantisierung

spricht am **16 May 2014 um 10 Uhr c.t.**,

im Seminarraum 00.009 (Physik Ost)

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über das Thema:

The deformation quantizations of the unit ball in the space of n complex variables

In the paper “The Deformation Quantizations of the Hyperbolic Plane” (see Comm. in math. phys., 289(2), 2009, pp. 529-559), Bieliavsky, Detournay and Spindel gave an explicit realization of the space of all both formal and non-formal deformation quantizations on the Poincaré disk in the complex plane. This construction relies on the evolution of a second order hyperbolic differential operator that emerges from a curvature contraction process on the Poincaré disk. Certain solutions of this evolution equation define convolution operators that intertwine the deformation theory at the contracted level with that of the Poincaré disk. This talk will be devoted to the study of a generalization of this construction in the case of the unit ball in C^n . Firstly, we will study the geometry of this bounded symmetric domain. Then, we will explicitly construct a hierarchy of PDE’s that is intimately related with the geometric structure of our space and from which we can describe the deformation theory of the unit ball in C^n . Finally, we will discuss the general resolution of this problem and some perspectives. This is a joint work with Prof. Pierre Bieliavsky.

gez. Stefan Waldmann