

Im Oberseminar

Deformationsquantisierung

spricht am **21. 7. 2017 um 14 Uhr c.t.**,

im Seminarraum 00.009 (Physik Ost)

FLORIAN ULLRICH

über das Thema:

Rolling Maps for Real Stiefel Manifolds II

In continuation of last week, this talk aims at pursuing the examination of the real Stiefel manifold $St_{n,k}$ and its rolling motion on affine tangent spaces. Especially, certain advantageous applications are the focus of our concern. Primarily, we will exploit a particular 1-1-correspondence with straight lines on the considered tangent space to derive a closed formula expressing geodesics on $St_{n,k}$. In accordance, a *geodesic equation* describing geodesics on $St_{n,k}$ in general will be derived by variational methods. We moreover want to construct a crucial bond between the theory of rolling motions and the realization of parallel transport. Finally, an observation in terms of controllability of the considered control system will be briefly presented.

gez. Stefan Waldmann