

Announcement

## Seminar on Deformation Quantization

**1. 7. 2022 at 14:45 CEST**

Seminar in SE 31

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### Optimization on Stiefel Manifolds

In this talk, the real (compact) Stiefel manifold  $\text{St}_{n,k}$  is considered as an embedded submanifold of the real  $(n \times k)$ -matrices  $\mathbb{R}^{n \times k}$ . Explicit formulas for (pseudo-)Riemannian gradients and (pseudo-)Riemannian Hessians are given with respect to a one-parameter family of metrics on  $\text{St}_{n,k}$ . These formulas allow for the application of Riemannian Newton methods and Riemannian trust-region methods on  $\text{St}_{n,k}$ .

Invited by Stefan Waldmann