

Announcement

## Oberseminar Deformationsquantisierung und Geometrie

**10th of October 2023 at 1pm CEST/CES**

Room SE30

MATHIEU STIÉNON (PENN STATE UNIVERSITY)

$A$ - $\infty$  algebras arising from Lie pairs

Given an inclusion  $A \rightarrow L$  of Lie algebroids sharing the same base manifold  $M$ , i.e. a Lie pair, the graded vector space  $\Gamma(\Lambda^\bullet A^*) \otimes_{C^\infty(M)} \mathcal{D}$ , admits a natural but non-obvious  $A_\infty$  algebra structure —  $D$  denotes the quotient of the universal enveloping algebra of the Lie algebroid  $L$  by the left ideal generated by  $\Gamma(A)$ . I will explain how this  $A_\infty$  algebra structure is inherited, by homotopy transfer, from the universal enveloping algebra of the differential graded Lie algebroid arising as the pullback of the Lie algebroid  $L \rightarrow M$  through the canonical surjective submersion  $A[1] \rightarrow M$ . This is a joint work with Luca Vitagliano and Ping Xu.

Invited by Madeleine Jotz