

5th ABCD-Seminar

Tuesday, July 12th, 2022, 4:30 pm

Severin Barmeier

University of Cologne

Varieties of reduction systems and PBW deformations

I will outline how to use reduction systems to give a complete and explicit description of the deformation theory of associative algebras. This perspective is very useful in practice and in this talk, I will explain one aspect of this story: how reduction systems can be used to study not only formal, but also "actual" (non-formal) deformations. From a geometric perspective, these actual deformations can be viewed as algebraic varieties of reduction systems which naturally generalize the varieties of PBW deformations of graded algebras.