Talk 3: *Operads in Algebra II*

This talk is a continuation of the previous talk "Operads in Algebra I." We define minimal models of algebraic operads and introduce Koszul operads as quadratic operads whose minimal model is isomorphic to the bar construction on the quadratic dual.

We then introduce operadic homology of algebras and state a theorem saying that an operad is Koszul if and only if the operadic cohomology of free algebras is trivial.