

Koszul, Ringel, and Serre duality for strict polynomial functors

Henning Krause
Universität Bielefeld

Strict polynomial functors were introduced by Friedlander and Suslin in their work on the cohomology of finite group schemes. More recently, a Koszul duality for strict polynomial functors has been established by Chalupnik and Touze. In my talk I will give a gentle introduction to strict polynomial functors (via representations of divided powers) and will explain the Koszul duality, making explicit the underlying monoidal structure which seems to be of independent interest.

Then I connect this to Ringel duality for Schur algebras and describe Serre duality for strict polynomial functors.