

# COMPUTING WITH NONCOMMUTATIVE ALGEBRAS IN MACAULAY2

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NCAgebra is a new package for Macaulay2 which provides tools for working with noncommutative graded rings and matrices over such rings. In this presentation, we give an overview of the package's primary methods, including those which compute noncommutative Gröbner bases, Hilbert series, central and normal elements, and kernels of matrices. We will also give examples of calculations that been made possible with this package.

*Joint work with Andy Conner (St. Mary's University, Moraga, CA, USA).*