SOME COMPUTATIONAL PROBLEMS IN NONCOMMUTATIVE POLYNOMIALS

JOSÉ GÓMEZ-TORRECILLAS

ABSTRACT. The factorization theory and the structure of finitely generated modules over an Ore extension of a division ring are well understood since the decade of 1940. However, a computational approach to this topic leads to specific difficulties that are not present in the algorithms for commutative polynomials. We will discuss some of them.

Departamento de Álgebra, Universidad de Granada, E18071 Granada, Spain *E-mail address:* gomezj@ugr.es