Complexity questions for triangular representations.

Eric Schost

Laboratoire LIX, Ecole Polytechnique F-91128 Palaiseau Cedex (schost@lix.polytechnique.fr)

Several applications problems (e.g., from cryptology) suggest that triangular representations are helpful for handling the solutions of polynomial systems. However, the underlying geometric problems, and the existing algorithms, are still far from being as well understood as, for instance, the geometric resolution. This talk will present recent complexity results related to such objects, as well as some of the applications that first motivated this study.