ON SPARSE POLYNOMIAL SOLVING

Gregorio Malajovich

Universidade Federal do Rio de Janeiro, Brasil gregorio.malajovich@gmail.com

Most of the rigorous theory of path-following algorithms for polynomial system solving assumes dense or dense multi-homogeneous polynomial systems. However, typical examples arising from applications tend to have a sparse structure which calls for theorems.

I will report on recent advances on sparse polynomial solving by homotopy, including mixed volume computation and path-following on toric varieties.