## ON THE SIZE OF THE SOLUTIONS OF SPARSE POLYNOMIAL SYSTEMS

Martin SOMBRA<sup>a</sup>

<sup>a</sup> Departament d'Algebra i Geometria, Universitat de Barcelona, Gran Via 585, 08007 Barcelona, Spain

We present sharp estimates for the size of the solution set of a sparse polynomial system, both in the function field and in the arithmetic settings. The obtained estimates make appear a new combinatorial invariant, the *mixed integral* of a family of concave functions. These results can be seen as analogues of the Bernstein-Kushnirenko theorem for rings of dimension 1.