Section 02: Algebra. Number Theory	Poster number 604

Canonical decomposition of polinomial ideals

Ignacio Ojeda[*], Departamento de Matemática Aplicada, Universidad Politécnica de Madrid. E.U. de Ingeniería Técnica Industrial (España).

Ramón Piedra, Departamento de Álgebra. Universidad de Sevilla (España).

ABSTRACT

V.Ortiz established in [*Sur une certaine decomposition canonique d'un idéal en intersection d'ideaux primaries dans un anneau noetherien commutatif*, C. R. Acad. Sci. Paris, **T. 248, n. 24** (1959), 3385–3387.] the existence of a canonical decomposition of ideals in a commutative noetherian ring. In this paper we study the canonical decomposition of ideals in a polynomial ring and we give an algorithmic procedure to compute canonical decompositions. Finally, we show an interesting example in which the canonical decomposition of a whole family of determinental ideals is computed.