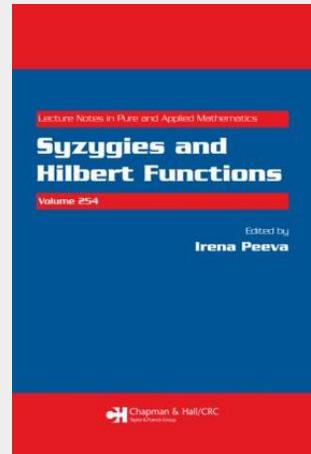


Syzygies and Hilbert Functions

Hilbert functions and resolutions are both central objects in commutative algebra and fruitful tools in the fields of algebraic geometry, combinatorics, commutative algebra, and computational algebra. Spurred by recent research in this area, *Syzygies and Hilbert Functions* explores fresh developments in the field as well as fundamental concepts. Written by international mathematics authorities, the book first examines the invariant of Castelnuovo-Mumford regularity, blowup algebras, and bigraded rings. It then outlines the current status of two challenging conjectures: the lex-plus-power (LPP) conjecture and the multiplicity conjecture. After reviewing results of the geometry of Hilbert functions, the book considers minimal free resolutions of integral subschemes and of equidimensional Cohen-Macaulay subschemes of small degree. It also discusses relations to subspace arrangements and the properties of the infinite graded minimal free resolution of the ground field over a projective toric ring. The volume closes with an introduction to multigraded Hilbert functions, mixed multiplicities, and joint reductions. By surveying exciting topics of vibrant current research, *Syzygies and Hilbert Functions* stimulates further study in this hot area of mathematical activity.



289,50 €
270,56 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9781584888604
Medium: Buch
ISBN: 978-1-58488-860-4
Verlag: Taylor & Francis Group (Inf3)
Erscheinungstermin: 20.03.2007
Sprache(n): Englisch
Auflage: 1. Auflage 2007
Serie: Lecture Notes in Pure and Applied Mathematics
Produktform: Kartoniert
Gewicht: 435 g
Seiten: 304
Format (B x H): 162 x 232 mm

