1. Record Nr. UNISALENTO991003634529707536

Titolo	Commutative algebra and its interactions to algebraic geometry [e-book] : VIASM 2013-2014 / Nguyen Tu Cuong, Le Tuan Hoa, Ngo Viet Trung, editors
ISBN	331975565X 9783319755656 3319755641 9783319755649
Descrizione fisica	1 online resource (ix, 256 pages) : illustrations
Collana	Lecture notes in mathematics, 0075-8434 ; 2210
Classificazione	AMS 14-06 LC QA251.3
Altri autori (Persone)	Brodmann, Markus P. Cuong, Nguyen Tuauthor Elias, Juan Hoa, Le Tuanauthor Miró-Roig, Rosa M. Morales Ibarra, Marcel Trung, Ngo Viet
Disciplina	516.35
Soggetti	Associative rings Commutative algebra Commutative rings Differential equations, Partial Geometry, Algebraic
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references
Nota di contenuto	Notes on Weyl algebra and D-modules / Markus Brodmann. Inverse systems of local rings / Juan Elias. Lectures on the representation type of a projective variety / Rosa M. Miró-Roig. Simplicial toric varieties which are set-theoretic complete intersections / Marcel Morales
Sommario/riassunto	"This book presents four lectures on recent research in commutative algebra and its applications to algebraic geometry. Aimed at

researchers and graduate students with an advanced background in algebra, these lectures were given during the Commutative Algebra program held at the Vietnam Institute of Advanced Study in Mathematics in the winter semester 2013 -2014. The first lecture is on Weyl algebras (certain rings of differential operators) and their D-modules, relating non-commutative and commutative algebra to algebraic geometry and analysis in a very appealing way. The second lecture concerns local systems, their homological origin, and applications to the classification of Artinian Gorenstein rings and the computation of their invariants. The third lecture is on the representation type of projective varieties and the classification of arithmetically Cohen-Macaulay bundles and Ulrich bundles. Related topics such as moduli spaces of sheaves, liaison theory, minimal resolutions, and Hilbert schemes of points are also covered. The last lecture addresses a classical problem: how many equations are needed to define an algebraic variety set-theoretically? It systematically covers (and improves) recent results for the case of toric varieties"--Print version, page 4 of cover