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Titolo	Brauer Groups and Obstruction Problems : Moduli Spaces and Arithmetic / / edited by Asher Auel, Brendan Hassett, Anthony Várilly-Alvarado, Bianca Viray
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Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (IX, 247 p.)
Collana	Progress in Mathematics, , 2296-505X ; ; 320
Disciplina	512.2
Soggetti	Algebraic geometry Number theory Algebraic Geometry Number Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	The Brauer group is not a derived invariant -- Twisted derived equivalences for affine schemes -- Rational points on twisted K3 surfaces and derived equivalences -- Universal unramified cohomology of cubic fourfolds containing a plane -- Universal spaces for unramified Galois cohomology -- Rational points on K3 surfaces and derived equivalence -- Unramified Brauer classes on cyclic covers of the projective plane -- Arithmetically Cohen-Macaulay bundles on cubic fourfolds containing a plane -- Brauer groups on K3 surfaces and arithmetic applications -- On a local-global principle for H3 of function fields of surfaces over a finite field -- Cohomology and the Brauer group of double covers.
Sommario/riassunto	The contributions in this book explore various contexts in which the derived category of coherent sheaves on a variety determines some of its arithmetic. This setting provides new geometric tools for interpreting elements of the Brauer group. With a view towards future arithmetic applications, the book extends a number of powerful tools for analyzing rational points on elliptic curves, e.g., isogenies among curves, torsion points, modular curves, and the resulting descent techniques, as well as higher-dimensional varieties like K3 surfaces.

Inspired by the rapid recent advances in our understanding of K3 surfaces, the book is intended to foster cross-pollination between the fields of complex algebraic geometry and number theory. Contributors: · Nicolas Addington · Benjamin Antieau · Kenneth Ascher · Asher Auel · Fedor Bogomolov · Jean-Louis Colliot-Thélène · Krishna Dasaratha · Brendan Hassett · Colin Ingalls · Martí Lahoz · Emanuele Macrì · Kelly McKinnie · Andrew Obus · Ekin Ozman · Raman Parimala · Alexander Perry · Alena Pirutka · Justin Sawon · Alexei N. Skorobogatov · Paolo Stellari · Sho Tanimoto · Hugh Thomas · Yuri Tschinkel · Anthony Várilly-Alvarado · Bianca Viray · Rong Zhou.