## Bonilla y Asociados <br> desde 1950 <br> 



# Título: Arithmetic And Geometry Of K3 Surfaces And Calabi-Yau Threefolds 

Autor: Laza, Radu; Schütt, Matthias; Yui, Noriko (Eds.)
Editorial:
Tema:
Sinopsis

Precio: \$2451.89
Año: 2013
Edición: $1^{\text {a }}$
ISBN: 9781461464020
Surveys the very active field of Calabi-Yau varieties from a geometric and arithmetic perspective
Includes four introductory lectures that can be used by graduate students and other researchers as a guide to the field
Contains a varied selection of topics from pure arithmetic questions to geometric questions to Hodge theory
In recent years, research in K3 surfaces and Calabi-Yau varieties has seen spectacular progress from both the arithmetic and geometric points of view, which in turn continues to have a huge influence and impact in theoretical physics_in particular, in string theory. The workshop on Arithmetic and Geometry of K3 surfaces and Calabi-Yau threefolds, held at the Fields Institute (August 16-25, 2011), aimed to give a state-of-the-art survey of these new developments. This proceedings volume includes a representative sampling of the broad range of topics covered by the workshop. While the subjects range from arithmetic geometry through algebraic geometry and differential geometry to mathematical physics, the papers are naturally related by the common theme of Calabi-Yau varieties. With the large variety of branches of mathematics and mathematical physics touched upon, this area reveals many deep connections between subjects previously considered unrelated.

Unlike most other conferences, the 2011 Calabi-Yau workshop started with three days of introductory lectures. A selection of four of these lectures is included in this volume. These lectures can be used as a starting point for graduate students and other junior researchers, or as a guide to the subject.

Content Level » Research
Keywords » \$K3\$ surfaces and Enriques surfaces - Calabi-Yau manifolds - cycles and subschemes - variation of Hodge structures

Bonilla y Asociados desde 1950<br>

Related subjects » Algebra - Geometry \& Topology - Number Theory and Discrete Mathematics
Table of contents .-Preface.-Introduction.-?List of Participants.- K3 and Enriques Surfaces (S. Kondo).- Transcendental Methods in the Study of Algebraic Cycles with a Special Emphasis on Calabi-Yau Varieties (J.D. Lewis).- Two Lectures on the Arithmetic of K3 Surfaces (M. Schüitt).Modularity of Calabi-Yau Varieties (N. Yui).- Explicit Algebraic Coverings of a Pointed Torus (A. Anema, J. Top).- Elliptic Fibrations on the Modular Surface Associated to G1(8).- Universal Kummer Families over Shimura Curves (A. Besser, R. Livné).- Numerical Trivial Automorphisms of Enriques Surfaces in Arbitrary Characteristic (I.V. Dolgachev).- Picard-Fuchs Equations of Special One-Parameter Families of Invertible Polynomials (S. Gährs).- A Structure Theorem for Fibrations on Delsarte Surfaces (B. Heijne, R. Kloosterman).- Fourier-Mukai Partners and Polarised K3 Surfaces (K. Hulek, D. Ploog).- On a Family of K3 Surfaces with S4 Symmetry (D. Karp, J. Lewish, D. Moore, D. Skjorshammer, U. Whitcher).- K1ind of Elliptically Fibered K3 Surfaces (M. Kerr).- A Note About Special Cycles on Moduli Spaces of K3 Surfaces (S. Kudla).- Enriques Surfaces of Hutchinson-Göpel Type and Mathieu Automorphisms (S. Mukai, H. Ohashi).- Quartic K3 Surfaces and Cremona Transformations (K. Oguiso).- Invariants of Regular Models of the Product of Two Elliptical Curves at a Place of Multiplicative Reduction (C. Schoen).- Dynamics of Special Points on Intermediate Jacobians (X. Chen, J.D. Lewis).-Calabi-Yau Conifold Expansions (S. Cynk, D. van Straten).- Quadratic Twists of Rigid Calabi-Yau Threefolds over Q (F.Q. Gouvêa, I. Kimming, N. Yui).- Counting Sheaves on Calabi-Yau and Abelian Threefolds (M.G. Gulbrandsen).- The Serge Cubic and Borcherds Products (S. Kondo).- Quadi-Modular Forms Attached to Hodge Structures (H. Movasati).- The Zero Locus of the Infinitesimal Invariable (G. Pearlstein, Ch. Schnell).

