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	Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
	Nota di contenuto	The Geometry and Moduli of K3 Surfaces (A. Harder, A. Thompson) -- Picard Ranks of K3 Surfaces of BHK Type (T. Kelly) -- Reflexive Polytopes and Lattice-Polarized K3 Surfaces (U. Whitcher) -- An Introduction to Hodge Theory (S.A. Filippini, H. Ruddat, A. Thompson) -- Introduction to Nonabelian Hodge Theory (A. Garcia-Raboso, S. Rayan) -- Algebraic and Arithmetic Properties of Period Maps (M. Kerr) -- Mirror Symmetry in Physics (C. Quigley) -- Introduction to Gromov–Witten Theory (S. Rose).- Introduction to Donaldson–Thomas and Stable Pair Invariants (M. van Garrel).- Donaldson–Thomas Invariants and Wall-Crossing Formulas (Y. Zhu).- Enumerative Aspects of the Gross–Siebert Program (M. van Garrel, D.P. Overholser, H. Ruddat). - Introduction to Modular Forms (S. Rose).- Lectures on Holomorphic Anomaly Equations (A. Kanazawa, J. Zhou) -- Polynomial Structure of Topological Partition Functions (J. Zhou).- Introduction to Arithmetic Mirror Symmetry (A. Perunicic).
	Sommario/riassunto	This volume presents a lively introduction to the rapidly developing and

vast research areas surrounding Calabi–Yau varieties and string theory. With its coverage of the various perspectives of a wide area of topics such as Hodge theory, Gross–Siebert program, moduli problems, toric approach, and arithmetic aspects, the book gives a comprehensive overview of the current streams of mathematical research in the area. The contributions in this book are based on lectures that took place during workshops with the following thematic titles: "Modular Forms Around String Theory," "Enumerative Geometry and Calabi–Yau Varieties," "Physics Around Mirror Symmetry," "Hodge Theory in String Theory." The book is ideal for graduate students and researchers learning about Calabi–Yau varieties as well as physics students and string theorists who wish to learn the mathematics behind these varieties.