1. Record Nr. UNINA9910134930703321

Autore	Hackney Philip
Titolo	Infinity Properads and Infinity Wheeled Properads / / by Philip Hackney, Marcy Robertson, Donald Yau
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-20547-1
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (XV, 358 p. 213 illus.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 2147
Disciplina	512.55
Soggetti	Algebraic topology Category theory (Mathematics) Homological algebra Algebraic Topology Category Theory, Homological Algebra
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Graphs -- Properads -- Symmetric Monoidal Closed Structure on Properads -- Graphical Properads -- Properadic Graphical Category -- Properadic Graphical Sets and Infinity Properads -- Fundamental Properads of Infinity Properads -- Wheeled Properads and Graphical Wheeled Properads -- Infinity Wheeled Properads -- What's Next?.
Sommario/riassunto	The topic of this book sits at the interface of the theory of higher categories (in the guise of (,1)-categories) and the theory of properads. Properads are devices more general than operads, and enable one to encode bialgebraic, rather than just (co)algebraic, structures. The text extends both the Joyal-Lurie approach to higher categories and the Cisinski-Moerdijk-Weiss approach to higher operads, and provides a foundation for a broad study of the homotopy theory of properads. This work also serves as a complete guide to the generalised graphs which are pervasive in the study of operads and properads. A preliminary list of potential applications and extensions comprises the final chapter. Infinity Properads and Infinity Wheeled Properads is written for mathematicians in the fields of topology,

algebra, category theory, and related areas. It is written roughly at the second year graduate level, and assumes a basic knowledge of category theory.