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   Titolo   Infinity Properads and Infinity Wheeled Properads / / by Philip Hackney,
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   Descrizione fisica   1 online resource (XV, 358 p. 213 illus.)

   Collana   Lecture Notes in Mathematics, , 0075-8434 ; ; 2147

   Disciplina   512.55

   Soggetti   Algebraic topology
                    Categories (Mathematics)
                    Algebra, Homological
                    Algebraic Topology
                    Category Theory, Homological Algebra

   Lingua di pubblicazione   Inglese

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   Livello bibliografico   Monografia

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   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.