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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Categorical and operadic background -- Symmetric monoidal categories for operads -- Symmetric objects and functors -- Operads and algebras in symmetric monoidal categories -- Miscellaneous structures associated to algebras over operads -- The category of right modules over operads and functors -- Definitions and basic constructions -- Tensor products -- Universal constructions on right modules over operads -- Adjunction and embedding properties -- Algebras in right modules over operads -- Miscellaneous examples -- Homotopical background -- Symmetric monoidal model categories for operads -- The homotopy of algebras over operads -- The (co) homology of algebras over operads -- The homotopy of modules over operads and functors -- The model category of right modules -- Modules and homotopy invariance of functors -- Extension and restriction functors and model structures -- Miscellaneous applications -- Appendix: technical verifications -- Shifted modules over operads and functors -- Shifted functors and pushout-products -- Applications of pushout-products of shifted functors.

Sommario/riassunto

The notion of an operad supplies both a conceptual and effective device to handle a variety of algebraic structures in various situations. Operads were introduced 40 years ago in algebraic topology in order to model the structure of iterated loop spaces. Since then, operads have been used fruitfully in many fields of mathematics and physics. This monograph begins with a review of the basis of operad theory. The main purpose is to study structures of modules over operads as a new device to model functors between categories of algebras as effectively as operads model categories of algebras.