

1. Record Nr.	UNINA9910999793203321
Autore	Vallette Bruno
Titolo	Higher Structures and Operadic Calculus // edited by Bruno Vallette
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Birkhäuser, , 2025
ISBN	9783031777790 3031777794
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (571 pages)
Collana	Advanced Courses in Mathematics - CRM Barcelona, , 2297-0312
Disciplina	512.6
Soggetti	Algebra, Homological Algebraic topology Geometry, Algebraic Category Theory, Homological Algebra Algebraic Topology Algebraic Geometry Àlgebra abstracta Càlcul Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Foreword -- Alexander Berglund and Robin Stoll: Higher structures in rational homotopy theory -- Ricardo Campos and Albin Grataloup: Operadic deformation theory -- Coline Emprin and Geoffroy Horel: Weight structures and formality -- Damien Calaque and Victor Roca I Lucio: Associators from an operadic point of view -- Olivia Borghi and Marcy Robertson: Lecture notes on modular infinity operads and grothendieck-teichmüller theory.
Sommario/riassunto	This book presents the notes originating from five series of lectures given at the CRM Barcelona in 21-25 June, 2021, during the "Higher homotopical structures" programme. Since their introduction 60 years ago, the notions of infinity algebras (Stasheff, Sugawara), higher categories (Boardman-Vogt), operads (May), and model categories (Quillen) have given rise to powerful new tools which made possible the resolution of open problems and prompted revolutions in many

domains like algebraic topology (rational homotopy theory, faithful algebraic invariants of the homotopy type of spaces), deformation theory (formality theorems, formal moduli problems), and mathematical physics (quantization of Poisson manifolds, quantum field theories), to name but a few. This theory of higher structures using operadic calculus is currently under rapid development. The aim of this book is to provide the community with an accessible state-of-the-art, while at the same time giving interested researchers and advanced students a brief overview on the subject.
