

1. Record Nr.	UNISA996418440203316
Autore	Mizera Sebastian
Titolo	Aspects of scattering amplitudes and moduli space localization / / Sebastian Mizera
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2020] ©2020
ISBN	3-030-53010-8
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XVII, 134 p. 18 illus., 14 illus. in color.)
Collana	Springer Theses
Disciplina	515.37
Soggetti	Differential forms Riemann surfaces Geometry, Differential
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter1: Introduction -- Chapter2: Intersection Numbers of Twisted Differential Forms -- Chapter3: Recursion Relations from Braid Matrices -- Chapter4: Further Examples of Intersection Numbers -- Chapter5: Conclusion.
Sommario/riassunto	This thesis proposes a new perspective on scattering amplitudes in quantum field theories. Their standard formulation in terms of sums over Feynman diagrams is replaced by a computation of geometric invariants, called intersection numbers, on moduli spaces of Riemann surfaces. It therefore gives a physical interpretation of intersection numbers, which have been extensively studied in the mathematics literature in the context of generalized hypergeometric functions. This book explores physical consequences of this formulation, such as recursion relations, connections to geometry and string theory, as well as a phenomenon called moduli space localization. After reviewing necessary mathematical background, including topology of moduli spaces of Riemann spheres with punctures and its fundamental group, the definition and properties of intersection numbers are presented. A comprehensive list of applications and relations to other objects is given, including those to scattering amplitudes in open- and closed-string theories. The highlights of the thesis are the results regarding

localization properties of intersection numbers in two opposite limits: in the low- and the high-energy expansion. In order to facilitate efficient computations of intersection numbers the author introduces recursion relations that exploit fibration properties of the moduli space. These are formulated in terms of so-called braid matrices that encode the information of how points braid around each other on the corresponding Riemann surface. Numerous application of this approach are presented for computation of scattering amplitudes in various gauge and gravity theories. This book comes with an extensive appendix that gives a pedagogical introduction to the topic of homologies with coefficients in a local system.

2. Record Nr.	UNINA9910484983503321
Autore	Gao Desheng
Titolo	Explorations of Chinese Moral Education Curriculum and Textbooks : Children's Life and Moral Learning / / by Desheng Gao, Le Zhang, Yan Tang
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2021
ISBN	9789811619373 9811619379
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (144 pages)
Collana	Curriculum Reform and School Innovation in China, , 2523-7330
Disciplina	370.1140951
Soggetti	Education - Curricula Moral development Learning, Psychology of Curriculum Studies Moral Development Learning Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Foreword -- Introduction -- Part I. Moral Curriculum Based on Children Life: New Ideas and Directions -- Chapter 1. "Back to life": The new transformation of moral curriculum in China -- Chapter 2. New

directions in the moral education curriculum -- Part II: Exploring a Way to Make Textbook Close to Children -- Chapter 3. Narrative ethics and life events: An attempt to break the dilemma of textbook compilation -- Chapter 4. Connected to children: An exploration to organize children experiences in textbook -- Chapter 5. Imitating children's life: How a moral education textbook becomes life-oriented -- Part III: Textbook, Teaching, and Teacher: Centred on moral learning -- Chapter 6. Compiling moral education textbook centred on moral learning -- Chapter 7. Teaching led by textbook: Direct moral instruction centred on moral learning -- Chapter 8. Teacher as moral learner: Reconstruction of moral teacher's identity -- Part IV: Moral and Legal Curriculum Construction from the Perspective of Integrated Curriculum -- Chapter 9. Legal education in moral curriculum in China -- Chapter 10. Integration of moral education and legal education and its limits -- Chapter 11. Children-based education of Chinese traditional culture and moral education.

Sommario/riassunto

This book shares with English readers Chinese theoretical and practical explorations of moral education curriculum for primary schools within the basic education curriculum reform project since 2001. The book expounds this moral education curriculum reform and focuses on three main ideas: The curriculum's aim is to enrich children's experiences and reflect their own lives; the curriculum's content is originated from children's lives; the curriculum's structure is developed from children's learning approach in their morality and social study. In this book, light is also shed on how to construct moral education textbooks, direct moral instruction, and moral teacher identity in the perspective of moral learning; how to knit law education and Chinese traditional culture education in moral curriculum. This is the first comprehensive book focusing on Chinese moral education curriculum reform. It will appeal to researchers, research students, and writers of moral education textbooks. It is also suitable for teacher training programs to help future teachers learn about moral education curriculum and help them effectively design and organize it for children's morality study.
