

1. Record Nr.	UNINA9910734331803321
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Titolo	Renormalization : an introduction to renormalization, the renormalization group and the operator-product expansion / / John C. Collins [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2023
ISBN	1-009-40180-7
Edizione	[1st ed.]
Descrizione fisica	1 online resource (x, 380 pages) : illustrations (black and white), digital, PDF file(s)
Collana	Cambridge monographs on mathematical physics
Disciplina	530.143
Soggetti	Renormalization (Physics) Renormalization group Particles (Nuclear physics) Scattering (Physics)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Previously issued in print: 1984.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Introduction; 2. Quantum field theory; 3. Basic examples; 4. Dimensional regularization; 5. Renormalization; 6. Composite operators; 7. Renormalization group; 8. Large-mass expansion; 9. Global symmetries; 10. Operator-product expansion; 11. Coordinate space; 12. Renormalization of gauge theories; 13. Anomalies; 14. Deep-inelastic scattering; References; Index.
Sommario/riassunto	Most of the numerical predictions of experimental phenomena in particle physics over the last decade have been made possible by the discovery and exploitation of the simplifications that can happen when phenomena are investigated on short distance and time scales. This book provides a coherent exposition of the techniques underlying these calculations. After reminding the reader of some basic properties of field theories, examples are used to explain the problems to be treated. Then the technique of dimensional regularization and the renormalization group. Finally a number of key applications are treated, culminating in the treatment of deeply inelastic scattering.