

1. Record Nr.	UNINA9910779926403321
Autore	Fried H. M (Herbert Martin)
Titolo	Green's functions and ordered exponentials // H.M. Fried [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2002
ISBN	1-107-12654-1 9786610416684 0-511-17786-0 0-511-14833-X 1-280-41668-8 0-511-53507-4 0-511-30528-1 0-521-44862-X 0-511-05273-1
Descrizione fisica	1 online resource (xi, 169 pages) : digital, PDF file(s)
Disciplina	530.15/535
Soggetti	Green's functions Exponential functions Mathematical physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	; 1. Introduction -- ; 2. Elementary functional methods -- ; 3. Schwinger-Fradkin methods -- ; 4. Lasers and crossed lasers -- ; 5. Special variants of the Fradkin representation -- ; 6. Quantum chaos and vectorial interactions -- ; 7. Infrared approximations -- ; 8. Models of high-energy, non-Abelian scattering -- ; 9. Unitary ordered exponentials.
Sommario/riassunto	This book presents a functional approach to the construction, use and approximation of Green's functions and their associated ordered exponentials. After a brief historical introduction, the author discusses new solutions to problems involving particle production in crossed laser fields and non-constant electric fields. Applications to problems in potential theory and quantum field theory are covered, along with

approximations for the treatment of color fluctuations in high-energy QCD scattering, and a model for summing classes of eikonal graphs in high-energy scattering problems. The book also presents a variant of the Fradkin representation which suggests a new non-perturbative approximation scheme, and provides a qualitative measure of the error involved in each such approximation. Covering the basics as well as more advanced applications, this book is suitable for graduate students and researchers in a wide range of fields, including quantum field theory, fluid dynamics and applied mathematics.
