1. Record Nr. UNISA996396621903316 Autore Holland Samuel, gent The phaenix her arrival & welcome to England [[electronic resource]]: Titolo it being an epithalamy on the marriage of the Kings Most Excellent Majesty with the Most Royal and Most Illustrious Donna Katharina of Portugal / / by Samuel Holland London, : Printed for the author, 1662 Pubbl/distr/stampa 7 p Descrizione fisica Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Imprint date appears to have been changed in ms. from 1662 to 1663 on item at reel 919:15. Reproductions of originals in the Henry E. Huntington Library and Art Gallery and Harvard University Library.

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Sommario/riassunto

Record Nr. UNINA9910799278503321 Autore Badger Simon Titolo Scattering Amplitudes in Quantum Field Theory / / by Simon Badger, Johannes Henn, Jan Christoph Plefka, Simone Zoia Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2024 **ISBN** 3-031-46987-9 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (312 pages) Collana Lecture Notes in Physics, , 1616-6361;; 1021 Altri autori (Persone) HennJohannes M PlefkaJan C ZoiaSimone Disciplina 530.14 Soggetti Particles (Nuclear physics) Quantum field theory Mathematical physics Elementary Particles, Quantum Field Theory Particle Physics Theoretical, Mathematical and Computational Physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction and Foundations -- On-shell Techniques for Tree-level Amplitudes -- Loop Integrands and Amplitudes -- Loop Integration Techniques and Special Functions -- Solutions to the Exercises. . Sommario/riassunto This open access book bridges a gap between introductory Quantum Field Theory (QFT) courses and state-of-the-art research in scattering amplitudes. It covers the path from basic definitions of QFT to amplitudes, which are relevant for processes in the Standard Model of particle physics. The book begins with a concise yet self-contained introduction to QFT, including perturbative quantum gravity. It then presents modern methods for calculating scattering amplitudes, focusing on tree-level amplitudes, loop-level integrands and loop integration techniques. These methods help to reveal intriguing

relations between gauge and gravity amplitudes and are of increasing

experiments, such as those at the Large Hadron Collider, as well as for

importance for obtaining high-precision predictions for collider

foundational mathematical physics studies in QFT, including recent applications to gravitational wave physics. These course-tested lecture notes include numerous exercises with solutions. Requiring only minimal knowledge of QFT, they are well-suited for MSc and PhD students as a preparation for research projects in theoretical particle physics. They can be used as a one-semester graduate level course, or as a self-study guide for researchers interested in fundamental aspects of quantum field theory.