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Titolo	Collider Physics within the Standard Model : A Primer // by Guido Altarelli ; edited by James Wells
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Descrizione fisica	1 online resource (XIV, 173 p. 60 illus., 34 illus. in color.)
Collana	Lecture Notes in Physics, , 1616-6361 ; ; 937
Disciplina	539.72
Soggetti	Particles (Nuclear physics) Quantum field theory Elementary Particles, Quantum Field Theory
Lingua di pubblicazione	Inglese
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Nota di contenuto	Preface -- Gauge Theories and the Standard Model -- QCD: The Theory of Strong Interactions -- The Theory of Electroweak Interactions -- References.
Sommario/riassunto	This book is open access under a CC BY 4.0 license. With this graduate-level primer, the principles of the standard model of particle physics receive a particular skillful, personal and enduring exposition by one of the great contributors to the field. In 2013 the late Prof. Altarelli wrote: The discovery of the Higgs boson and the non-observation of new particles or exotic phenomena have made a big step towards completing the experimental confirmation of the standard model of fundamental particle interactions. It is thus a good moment for me to collect, update and improve my graduate lecture notes on quantum chromodynamics and the theory of electroweak interactions, with main focus on collider physics. I hope that these lectures can provide an introduction to the subject for the interested reader, assumed to be already familiar with quantum field theory and some basic facts in elementary particle physics as taught in undergraduate courses. "These lecture notes are a beautiful example of Guido's unique pedagogical abilities and scientific vision". From the Foreword by Gian Giudice.

