QUANTUM CHROMODYNAMICS AT HIGH ENERGY

Filling a gap in the current literature, this book is the first entirely dedicated to high energy quantum chromodynamics (QCD) including parton saturation and the color glass condensate (CGC). It presents groundbreaking progress on the subject and describes many problems at the forefront of research, bringing postgraduate students, theorists, and interested experimentalists up to date with the current state of research in this field.

The material is presented in a pedagogical way, with numerous examples and exercises. Discussion ranges from the quasi-classical McLerran–Venugopalan model to the linear BFKL and nonlinear BK/JIMWLK small-x evolution equations. The authors adopt both a theoretical and an experimental outlook, and present the physics of strong interactions in a universal way, making it useful for physicists from various subcommunities of high energy and nuclear physics, and applicable to processes studied at all high energy accelerators around the world. A selection of color figures is available online at www.cambridge.org/9780521112574.

This title, first published in 2013, has been reissued as an Open Access publication on Cambridge Core.

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