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.

YURI V. KOVCHEGOV is Professor in the Department of Physics at The Ohio State University. He is a world leader in the field of high energy QCD. In 2006 he was awarded The Raymond and Beverly Sackler Prize in the Physical Sciences by Tel Aviv University for a number of groundbreaking contributions in the field. The Balitsky–Kovchegov equation bears his name.

EUGENE LEVIN is Professor Emeritus in the School of Physics and Astronomy at Tel Aviv University. He is the founding father of the field of parton saturation and of the constituent quark model. Equations and approaches that bear his name include the Levin–Frankfurt quark-counting rules, the Gribov–Levin–Ryskin nonlinear equation, the Levin–Tuchin solution, and the Kharzeev–Levin–Nardi approach, reflecting only a selection of his many contributions to high energy physics.

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YURI V. KOVCHEGOV
The Ohio State University, USA

EUGENE LEVIN
Tel-Aviv University, Israel

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Shaftesbury Road, Cambridge CB2 8EA, United Kingdom

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477 Williamstown Road, Port Melbourne, VIC 3207, Australia

314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre, New Delhi – 110025, India

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