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Nota di contenuto	Foreword; Contents; 1. PARTONIC STRUCTURE OF HADRONS; Nucleon Form Factors and Structure Functions from Lattice QCD; Chiral Extrapolation of Lattice Structure Function Calculations; Charge Symmetry in Parton Distributions; Distortions in the Negative Energy Dirac sea: Violation of the Gottfried Sum Rule and Au in the Proton; Parton Distributions for the Pion in a Chiral Quark Model; Generalized Parton Distributions and Distribution of Partons in the Transverse Plane; Exclusive Processes at HERMES; Soft Pion Production Associated with Deeply Virtual Compton Scattering 2. SPIN STRUCTURE OF HADRONSAn Experimental Review of the Nucleon Spin Structure Functions; Polarized Structure Functions in QCD; Single Spin Asymmetries and Quark Fragmentation; Determining AG with Polarized Photo- and Hadroproduction of Heavy Quarks; Flavour Symmetry Breaking in the Polarized Nucleon Sea; 3. PERTURBATIVE - NONPERTURBATIVE QCD TRANSITION; Lepton Scattering and Quark-Hadron Duality Studies at JLab; Quark-Hadron

Duality in Inclusive Electron-Hadron Scattering; Signals of Local Duality from a Perturbative QCD Analysis of Inclusive ep Scattering
Gluons Quarks and the Transition from Nonperturbative to Perturbative QCDEstimating Low Energy Model Parameters from Deep Inelastic Scattering; 4. FORM FACTORS; Measurement of GEP/GMP to Q2 = 5.6 GeV2 via Recoil Polarization at Jefferson Lab; Physical Hadron Properties from Lattice Data at Large Quark Masses; Meson Cloud Considerations in the Strange Magnetic Moment of the Nucleon from Lattice QCD; Electromagnetic Interactions in Light Front Dynamics; Soft QCD Modeling of Meson Electromagnetic Form Factors; Nucleon Form Factors in the Covariant Diquark-Quark Model
5. HADRON EXCITATIONS CONFINEMENT AND CHIRAL SYMMETRY BREAKINGExperimental Studies of the Hadron Spectrum; The Character of Goldstone Bosons; Confinement from Coulomb Gauge QCD and Exotic Phenomenology; Regulator Free Dyson-Schwinger Equation Studies of Non-Perturbative Field Theory; Domain-Like Structures in the QCD Vacuum Confinement and Chiral Symmetry Breaking; Glueball Properties in Anisotropic SU(3) Lattice QCD with an Improved Action; Deconfining by Winding; Charmonium Glueballs and Exotic Hybrids in a Relativistic Many-Body Approach; 6. SMALL-x PHYSICS AND NUCLEAR MEDIUM EFFECTS
Small x Physics and the Initial Conditions in Heavy Ion CollisionsLeading Nucleon Production at HERA; Nuclear Medium Effects at HERMES; Non-Singlet Structure Function of the 3He-3H System and Divergence of the Gottfried Integral; Quark-Diquark Structure of the Nucleon: Structure Functions Static Properties and Nuclear Matter Equation of State; Physics Motivation for a Polarized Electron-Ion Collider; List of participants

Sommario/riassunto

This volume is centered on recent developments in the exploration of hadronic structure through lepton scattering, in the description of hadron physics directly from lattice QCD and non-perturbative QCD models, and in efforts to strengthen the links between these activities. Specific topics that are covered include: parton distribution functions, polarized structure functions, generalized structure functions, nuclear effects, quark-hadron duality, electromagnetic form factors, structure functions and hadron properties from lattice QCD, and QCD models based on the Dyson-Schwinger equations. Con