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Titolo	Particle Physics in the New Millennium [[electronic resource] ] : Proceedings of the 8th Adriatic Meeting / / edited by Josip Trampetic, Julius Wess
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Collana	Lecture Notes in Physics, , 0075-8450 ; ; 616
Disciplina	539.7/2
Soggetti	Nuclear physics Elementary particles (Physics) Quantum field theory String theory Astrophysics Gravitation Particle acceleration Particle and Nuclear Physics Elementary Particles, Quantum Field Theory Quantum Field Theories, String Theory Astrophysics and Astroparticles Classical and Quantum Gravitation, Relativity Theory Particle Acceleration and Detection, Beam Physics
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	"Physics and Astronomy."
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Neutrino Physics, Cosmology -- Models of Neutrino Masses and Mixing -- Dark Matter in the Galaxy -- Neutrino Masses in GUTs and Baryon Asymmetry -- Neutrinos in the New Century -- The Intriguing Distribution of Dark Matter in Galaxies -- Particle Physics Phenomenology -- Some Aspects of B Decays -- The Flavour and CP Problems in SUSY -- Family Replicated Fit of All Quark and Lepton Masses and Mixings -- Nonleptonic Two Body B Decays and CP Violation -- States of Strongly Interacting Matter -- Ghost-Free APT

Analysis of Perturbative QCD Observables -- Perturbative Logarithms and Power Corrections in QCD Hadronic Functions. -- Bounds on  $\tan \beta$  in the MSSM from Top Quark Production at TeV Energies -- Experimental Particle Physics -- Diffractive Physics in the Near Future -- Observation of Direct CP Violation in Kaon Decays -- The CMS Experiment and Physics at the LHC -- The ATLAS Detector and Physics Potential -- Flavour Oscillation and CP Violation: Experimental Results on B Mesons -- Noncommutative Field Theories -- A Short Review of Noncommutative Field Theory -- Regularization and Renormalization of Quantum Field Theories on Noncommutative Spaces -- Physical Instances of Noncommuting Coordinates -- Particle Physics on Noncommutative Space-Time -- Gauge Theories on Noncommutative Spaces -- Diverse Topics in Theoretical Physics -- QCD2 with Massless Quarks in Terms of Currents -- Physics of the Monopoles in QCD -- Some Recent Results of Electromagnetic Nucleon Form Factors Measurements Using Transfer of Polarization -- Some Recent Results of Electromagnetic Nucleon Form Factors Measurements Using Transfer of Polarization -- Dyons in Nonabelian Born-Infeld Theory -- Dyons in Nonabelian Born-Infeld Theory -- One-Loop Finite Relations in the Standard Model -- One-Loop Finite Relations in the Standard Model -- Gravitational Wave Bursts from Brane World Neutrino Oscillations During Supernova Collapse -- Gravitational Wave Bursts from Brane World Neutrino Oscillations During Supernova Collapse -- Towards Adelic Noncommutative Quantum Mechanics -- Towards Adelic Noncommutative Quantum Mechanics -- Three Loop Leading Top Mass Contributions to the  $\beta$  Parameter -- Three Loop Leading Top Mass Contributions to the  $\beta$  Parameter --  $\beta_S = 2$  Decays of B - Meson --  $\beta_S = 2$  Decays of B - Meson -- Charmonium Hado-Production at HERA-B -- Charmonium Hado-Production at HERA-B -- Finite Chern-Simons Matrix Model - Algebraic Approach -- Finite Chern-Simons Matrix Model - Algebraic Approach -- Expectations for Charged Higgs in CMS -- Expectations for Charged Higgs in CMS -- Heavy Ion Physics in CMS -- Heavy Ion Physics in CMS -- Tracking in a High Rate Environment -- Tracking in a High Rate Environment -- Resonances from Strongly-Interacting Electroweak Symmetry Breaking Sector at Future  $e + e -$  Colliders -- Resonances from Strongly-Interacting Electroweak Symmetry Breaking Sector at Future  $e + e -$  Colliders -- Predictions for Deeply Virtual Compton Scattering on a Spin-One Target -- Predictions for Deeply Virtual Compton Scattering on a Spin-One Target -- H  $\beta$  ?? Studies in CMS -- H  $\beta$  ?? Studies in CMS -- Self-gravitating Bosons at Finite Temperature -- Self-gravitating Bosons at Finite Temperature -- BLM Scale for the Pion Transition Form Factor -- BLM Scale for the Pion Transition Form Factor -- Radiatively Induced Conversions of Massive Neutrinos -- Radiatively Induced Conversions of Massive Neutrinos -- Pion and Vacuum Properties in the Nonlocal NJL Model -- Pion and Vacuum Properties in the Nonlocal NJL Model -- Black Hole Entropy from Horizon CFT in Gauss-Bonnet Gravity -- Black Hole Entropy from Horizon CFT in Gauss-Bonnet Gravity -- An Overview of the Sources for Electroweak Baryogenesis -- An Overview of the Sources for Electroweak Baryogenesis -- Quantum Corrections for BTZ Black Hole via 2D Reduced Model -- Quantum Corrections for BTZ Black Hole via 2D Reduced Model -- Squarks and Gluino Searches with CMS at LHC -- Squarks and Gluino Searches with CMS at LHC -- Target Mass Effects and the Jost-Lehmann-Dyson Representation for Structure Functions -- Target Mass Effects and the Jost-Lehmann-Dyson Representation for Structure Functions -- Family Replicated Calculation of Baryogenesis -- Family Replicated Calculation of Baryogenesis -- Measurement of  $\sin(2\beta)$  with BaBar -- Measurement of  $\sin(2\beta)$  with BaBar -- Rare Decay D 0

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Sommario/riassunto

This book contains the extended lectures of the 8th Adriatic meeting which is traditionally devoted to the presentation of lectures on the most advanced scientific topics to young scientists, who actively participate, on an international level, in the development of their respective fields. The emphasis of the present meeting was on gauge theories, particle phenomenology, string theories and cosmology. The accompanying CD-ROM contains 27 additional contributions, of a length somewhat shorter than 25 presented in the printed book. .

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