

1. Record Nr.	UNINA9910788549403321
Titolo	Proceedings of the fifth Meeting on CPT and Lorentz Symmetry, Bloomington, USA, 28 June-2 July 2010 [[electronic resource] /] / editor, V. Alan Kostelecky
Pubbl/distr/stampa	Hackensack, N.J., : World Scientific, 2011
ISBN	1-283-14520-0 9786613145208 981-4327-68-9
Descrizione fisica	1 online resource (250 p.)
Altri autori (Persone)	KosteleckyV. Alan
Disciplina	539.725
Soggetti	CP violation (Nuclear physics) Lorentz groups
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Preface; CONTENTS; Emergent Photons and Gravitons: The Problem of Vacuum Structure J.D. Bjorken; Matter-Wave Tests of the Gravitational Redshift in Space H. Muller, M.A. Hohensee, and N. Yu; Laser Spectroscopy of Antiprotonic Helium at CERN's Antiproton Decelerator Facility M. Hori; Topics in Lorentz and CPT Violation V.A. Kostelecky; Lorentz and CPT Violation in Neutrino Oscillations J.S. Diaz; Spontaneous Lorentz Symmetry Breaking in Nonlinear Electrodynamics L.F. Urrutia; Testing Lorentz and CPT Invariance Using the MINOS Far Detector S.L. Mufson and B.J. Rebel Search for Light-Speed Anisotropies Using Compton Scattering of High-Energy Electrons D. Rebreyend Torsion Balance Tests of Couplings to Spin B.R. Heckel et al.; Tests of Fundamental Symmetries Using Noble Gas Masers D.F. Phillips, A. Glenday, and R.L. Walsworth; ALPHA Antihydrogen Experiment M.C. Fujiwara et al.; Extending the Reach of Lorentz Tests with Atomic Clocks B. Altschul; Lorentz Symmetry and Matter-Gravity Couplings J.D. Tasson; Effective QFT and What it Tells Us about Dynamical Torsion I.L. Shapiro; Test for Lorentz and CPT Violation with the MiniBooNE Low-Energy Excess T. Katori A New Limit on Lorentz- and CPT-Violating Neutron Spin Interactions J. M. Brown et al.Higher-Order Lorentz Violations in Electrodynamics M.

Mewes; Status and Prospects for Lorentz and CPT Violation Tests at KLOE and KLOE-2 A. De Santis; Testing Lorentz Invariance by Comparing Light Propagation in Vacuum and Matter M. Nagel et al.; Topological-Defect Solutions in Lorentz-Violating Field Theories M.D. Seifert; AEGIS at CERN: Measuring Antihydrogen Fall M.G. Giammarchi; Gauge Noninvariance as Tests of Emergent Gauge Symmetry J.F. Donoghue, M.M. Anber, and U. Aydemir
 Testing Time Dilation on Fast Ion Beams G. Saatho et al. Searches for Violation of CPT and Lorentz Invariance Using Top Quarks G. Gutierrez; Spontaneous Lorentz Violation, Nambu-Goldstone Modes, and Massive Modes R. Bluhm; Cavity Constraints on Isotropic Shift and Anisotropies of the Speed of Light P.L. Stanwix et al.; Constraining Lorentz Invariance Violation with Fermi V. Vasileiou; Kinematical Lorentz-Symmetry Tests at Particle Colliders R. Lehnert; New Experiments with Antiprotons D.M. Kaplan; Gravity Couplings in the Standard-Model Extension Q.G. Bailey
 D Evidence for CP Violation and Implication for CPT Violation in B-Meson Mixing R. Van Kooten Testing Relativity with GP-B and STEP P.W. Worden; Evidence for Solar Influences on Nuclear Decay Rates E. Fischbach et al.; Search for Lorentz-Invariance-Violating Effects in the Decay of Free Neutrons A. Kozela et al.; Lorentz Violation in Top-Quark Production and Decay M.S. Berger; Lorentz Violation by Quark Condensation C. Xiong; Tests of Lorentz Invariance Using a Spectrometer Dedicated to the Neutron Electric Dipole Moment (nEDM) Search I. Altarev et al.
 Laboratory Searches for Preferred Frame Effects Ongoing Work and Results at Birmingham H. Panjwani, L. Carbone, and C.C. Speake

Sommario/riassunto

This book contains the Proceedings of the Fifth Meeting on CPT and Lorentz Symmetry, held at Indiana University in Bloomington from June 28 to July 2, 2010. The Meeting focused on tests of these fundamental symmetries and on related theoretical issues, including scenarios for possible violations. Topics covered at the meeting include searches for CPT and Lorentz violations involving: birefringence and dispersion from cosmological sources, clock-comparison measurements, CMB polarization, electromagnetic resonant cavities, equivalence principle, gauge and Higgs particles, high-energy astrophysic
