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Nota di contenuto	CONTENTS; Preface; Improved Tests of Lorentz and CPT Symmetry using Noble-Gas Masers A . Glenday, D.F. Phillips, and R.L. Walsworth; 1. Introduction; 2. Motivation; 3. $^{129}\text{Xe}/^{3}\text{He}$ maser upgrades for Lorentz/CPT tests; 4. Conclusions; Acknowledgments; References; A Modern Michelson-Morley Experiment using Actively Rotated Optical Resonators S. Herrmann et al.; 1. Introduction; 2. The experiment; 3. Preliminary results; 4. Outlook; References; Rotating Experiments to Test Lorentz Invariance in the Photon Sector M.E. Tobar et al.; 1. Rotating Cryogenic Sapphire Oscillator Experiment 2. Rotating Magnetic Interferometer ExperimentReferences; Lorentz Violation, Electrodynamics, and the Cosmic Microwave Background M. Mewes; 1. Introduction; 2. Theory; 3. CMB; 4. Results; Acknowledgments; References; High Energy Astrophysical Tests of Lorentz Invariance B. Altschul; References; Fundamental Physics Experiments in Space (within ESA) T.J. Sumner; 1. Motivation; 2. Enabling Technologies; 3. Opportunities; 3.1. LISA Pathfinder; 3.1.1. Technological Concept; 3.1.2. Scientific Objectives; 3.2. LISA; 3.2.1.

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Sommario/riassunto

This book contains the proceedings of the Fourth Meeting on CPT and
Lorentz Symmetry, held at Indiana University in Bloomington on August
8-11, 2007. The Meeting focused on experimental tests of these
fundamental symmetries and on important theoretical issues, including
scenarios for possible relativity violations. Experimental subjects
covered include: astrophysical observations, clock-comparison
measurements, cosmological birefringence, electromagnetic resonant
cavities, gravitational tests, matter interferometry, muon behavior,
neutrino oscillations, oscillations and decays of neutral meso
