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Altri autori (Persone)	Pascual SanchezJ. F
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Nota di contenuto	Preface; CONTENTS; INVITED LECTURES ON REFERENCE FRAMES AND GRAVITOMAGNETISM; Spacetime splitting techniques and gravitoelectromagnetism in general relativity; Gravitoelectromagnetism: applications to black hole circular orbits; Gravitomagnetism Lense-Thirring effect and de Sitter precession; Gravitomagnetic phenomena due to spin Lense-Thirring effect and its 1995-2000 measurements with earth satellites; Elements for a theory of relativistic coordinate systems. Formal and physical aspects; Black hole astrophysics: Gravitomagnetism and non keplerian orbits Theory of relativistic-reference frames for high-precision astrometric space missions Geometry and dynamics of the brane-world; Gravitoelectromagnetism; Relativity and nonlocality; General electric-magnetic decomposition of fields positivity and Rainich-like conditions; COMMUNICATIONS ON REFERENCE FRAMES AND GRAVITOMAGNETISM; The dominant energy condition and generalised Rainich conditions; On turning over gyroscopic precession; Solid and ocean earth tides and the detection of some gravitomagnetic effects; Properties of Bel currents;

## Sagnac and the g-clock effect revisited

A List of references on spacetime splitting and gravitoelectromagnetism INVITED LECTURE\* AND COMMUNICATIONS ON OTHER TOPICS; On thermal equilibrium in general relativity; Entropy in the universe: A new approach; On cyclically symmetrical space times; A theory of time-varying constants; Relations between light like foliations and observers in symplectic mechanics; Scalar field cosmologies; Thermodynamics and the dominant energy condition in gravity theories; Twisting type-N fields with symmetries; Ideal gas Stephani universes

Constructing models for stars and voids in the universe: A comprehensive approach Vacuum spacetimes with an isometry; Multipole corrections to perihelion and node line precession; Comments on purely electric Weyl tensors; Ring-down of an accreting black hole; Magnetised cosmological perturbations: A dynamical systems approach; Contradiction between the Friedmann universe and the local physics; On radiative properties of boost-rotation symmetric type D spacetimes; Classical and relativistic time dilation; Advance of Mercury perihelion explained by cogravity

Generation and detection of high frequency gravitational waves The intrinsic structure of the Petrov classification; Generation of gravitational waves in de Sitter space-time; List of participants

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## Sommario/riassunto

This book provides an authoritative overview of the developments in gravitomagnetism which have taken place in the last few years. In particular, experiments for measuring the Lense-Thirring effect with satellites orbiting the Earth are reviewed, and an updated list of references on gravitomagnetism is included. The book also presents diverse research in general relativity and cosmology. It will be of interest to graduate students and researchers in cosmology, astrophysics, astronomy, relativity and applied mathematics. Contents: Spacetime Splitting Techniques and Gravitoelectromagnetism in

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