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	Nota di contenuto	Semi-Riemannian Cones with parallel null planes(Alekseevsky et al.) -- Nilpotent structures of neutral 4-manifolds and light-like surfaces (Ando) -- Positive Energy Theorems in Fourth-Order Gravity(Avalos) -- Curvature and Killing vector fields on Lorentzian 3-manifolds(Aazami) -- Bochner-flat para-Kähler surfaces(Ferreiro-Subrido) -- Remarks on the existence of CMC Cauchy surfaces(Galloway et al) -- Lorentzian area and volume estimates for integral mean curvature bounds(Graf) -- Null hypersurfaces and the rigged metric(Gutiérrez) -- Spacelike Causal Boundary at Finite Distance and Continuous Extension of the Metric: A Preliminary Report(Harris) -- Lightlike hypersurfaces and time-minimizing geodesics in cone structures(Javaloyes et al) -- Anisotropic connections and parallel transport in Finsler spacetimes(Javaloyes et al) -- Stability of pseudo-Kähler manifolds and cohomological

decomposition(Latorre et al) -- Singularity scattering laws for bouncing cosmologies: a brief overview(LeFloch et al) -- -contact structures and six-dimensional supergravity (Gil) -- Geometry of null hypersurfaces in Lorentzian space forms(Navarro et al) -- Dynamics of relativistic particles with torsion in certain non-flat spacetimes(Rosa et al) -- The half-space model of pseudo-hyperbolic space(Seppi et al).

Sommario/riassunto

This proceedings volume gathers selected, revised papers presented at the X International Meeting on Lorentzian Geometry (GeLoCor 2021), virtually held at the University of Córdoba, Spain, on February 1-5, 2021. It includes surveys describing the state-of-the-art in specific areas, and a selection of the most relevant results presented at the conference. Taken together, the papers offer an invaluable introduction to key topics discussed at the conference and an overview of the main techniques in use today. This volume also gathers extended revisions of key studies in this field. Bringing new results and examples, these unique contributions offer new perspectives to the original problems and, in most cases, extend and reinforce the robustness of previous findings. Hosted every two years since 2001, the International Meeting on Lorentzian Geometry has become one of the main events bringing together the leading experts on Lorentzian geometry. In thisvolume, the reader will find studies on spatial and null hypersurfaces, low regularity in general relativity, conformal structures, Lorentz-Finsler spacetimes, and more. Given its scope, the book will be of interest to both young and experienced mathematicians and physicists whose research involves general relativity and semi-Riemannian geometry. .