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Abstracts of Short Communications and Posters

Section:

5. Differential Geometry and Global Analysis

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Foliations of Lorentz manifolds

We recast the tools and results of Global Causal Analysis (as the structure of space of causal curves, global hiperbolicity, and so on), and we formulate under which conditions a Lorentz manifold admits a codimension one foliation, by Cauchy surfaces, or leaves, which are homeomorphics.
Also, in PL-manifolds, we propose a effective process to obtain simplicial models, with progressive minor tethraedral cells. So, we obtain a new triangulation, very useful in works on Numerical Relativity.