



POLITÉCNICA

Seminario del Departamento de Matemática Aplicada

Homogeneous structures on three-dimensional Lorentzian manifolds

Wafaa Batat
Ecole Nationale Polytechnique d'Oran-Maurice Audin
Algeria

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Abstract.

In this talk, we will introduce the notion of homogeneous pseudo-Riemannian structures. We will give a complete classification of these structures on Lorentzian three-manifolds admitting a parallel null vector field, also on 3-dimensional manifolds with large isometry group, and finally we will give a complete classification of skew-symmetric homogeneous structures in dimension 3. This leads to the full classification of naturally reductive Lorentzian 3-spaces.