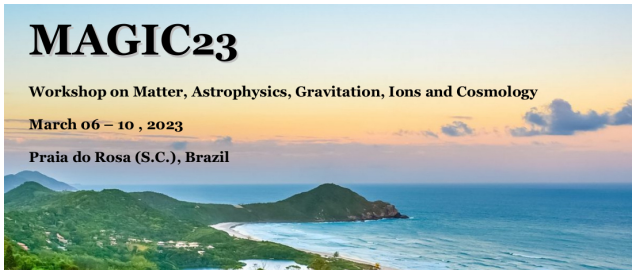

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An association with preferred-frame S_V and Critical Speed of a superfluid

A preferred frame S V with minimal speed associeted as a critical speed of superfluid and acoustical causal structure. The gravitational vacuum as superfluid Abstract. We studied a preferred-frame proposal generated from the introduction of a minimum speed in lorentz transformations. We motivate the deformation of Lorentz's transformations , building a geodesic compatible with the existence of a minimum velocity, we deduce a hypothesis of the clock deformed by the presence of minimal speed and relationship of uncertainty. We show that the clock hypothesis and the relationship of uncertainty time energy have a relationship of reciprocity with each other.This structure is then compared to a superfluid via Landau's criterion, which demonstrates that the minimal velocity previously postulated can be understood as a critical velocity for a Landau superfluid. Next, we studied the causation and geometric implications of the relationship of the privileged reference with an Einstein-Euller observer

Author: SANTOS, Rodrigo F. (Secretaria de Educação de Belford-Roxo)

Co-authors: Dr AMARO DE FARIA JR, Antonio Carlos (Universidade Tecnologica Federal do Parana); Dr ALMEIDA, Luis Gustavo (Universidade Federal do Acre)

Presenter: SANTOS, Rodrigo F. (Secretaria de Educação de Belford-Roxo)

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