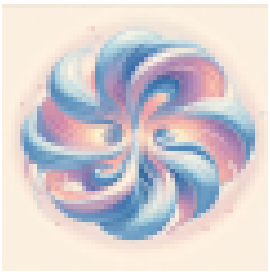

ID de Contribution: **63** Type: **Flash Talk (Plenary) + Poster**

Ideal-spin hydrodynamics on top of a rotating background

lundi 22 juillet 2024 17:40 (5 minutes)

After formulating the angular momentum conservation in a covariant form, we consider the equations of spin hydrodynamics in the background of an uncharged fluid in global equilibrium with a non-vanishing thermal vorticity.
Assuming that the spin degrees of freedom are not in equilibrium, we derive relaxation-type equations for the components of the spin potential.
These equations generalize the existing literature on the spin waves which were derived on top of a fluid in a hydrostatic state, where the thermal vorticity is zero.
Our purpose is to understand the dynamics of relaxation of the spin potential to the thermal vorticity in a simple setup and also pave the way for realistic numerical simulations.

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Classification de Session: Flash talk and posters