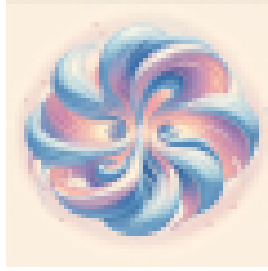


# The 8th International Conference on Chirality, Vorticity and Magnetic Field in Quantum Matter



ID de Contribution: 40

Type: **Talk**

## Relativistic Quantum-statistical formulation of spin hydrodynamics

*mardi 23 juillet 2024 17:00 (30 minutes)*

Motivated by the evidence of spin polarization of particles produced in relativistic heavy ion collisions, there is a growing interest in the so-called relativistic spin hydrodynamics. In this talk, we will present the outcomes of using a first-principle quantum-statistical method to derive the expression of the entropy current and entropy production rate in relativistic spin hydrodynamics. We'll discuss key findings in comparison to phenomenological spin hydrodynamics, along with its future potential.

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**Auteurs principaux:** DAHER, Asaad (IFJ PAN Krakow Poland); BECATTINI, Francesco (Università di Firenze); SHENG, Xin-Li (INFN Firenze)

**Orateur:** DAHER, Asaad (IFJ PAN Krakow Poland)

**Classification de Session:** Hydrodynamics