Università degli Studi di Trieste
Dipartimento di Fisica
Seminario

Xavier Artru

Institut de Physique Nucléaire de Lyon

CNRS/IN2P3 and Université Lyon-1

Thursday, November 9, 4:30 PM – Lecture Room A, F building, Dip. di Fisica – via Valerio 2 – Trieste

Spin inequalities, spin entanglement, and Monte-Carlo for polarized jets.

The spin observables of a polarized reaction obey spin inequalities translating the positivity of the cross section matrix, which is the density matrix of a state gathering all the polarized particles (initial and final ones).

This « quantum positivity » is more severe than the mere « classical positivity » of the cross section. We give their physical meaning in terms of separable or entangled states and compare their respective domains in the space of observables.

In a second part, we recall the Knowless-Collins rules for Monte-Carlo generation of polarized and entangled cascades and tell how to apply them in the recursive jet model and in e+e- annihilation into hadrons.
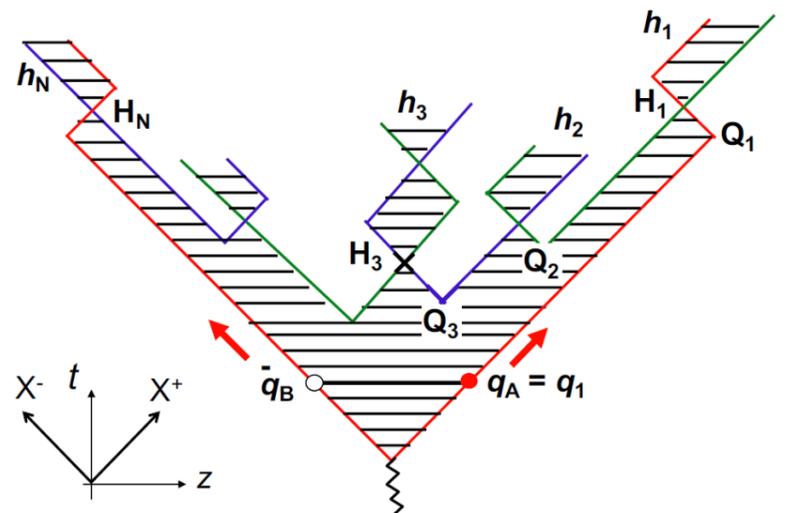
Organizzazione a cura di: A. Martin, E. Vesselli

Everyone interested in the topic is welcome to attend