20th MCnet Meeting

Wednesday 25 March 2020 - Friday 27 March 2020

Göttingen University

Book of Abstracts

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Interferometric Signatures of Collectivity in Small Systems

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Particle interferometry has proven to be an indispensable tool in probing the space-time evolution of femtoscopic collision systems. In this talk, I show how hydrodynamic predictions for the space-time evolution of high-multiplicity pp and p+Pb collisions can be tested against interferometric observables designed to probe their size and shape. In particular, I consider how the dependence of these observables on the multiplicity $dN_{\rm ch}/d\eta$ may reflect the hydrodynamic nature of the evolving system, as well as briefly describing some ongoing efforts to perform similar analyses using the Pythia/Angantyr framework.

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The Chirality-Flow Formalism for the Standard Model

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The chirality-flow formalism has recently been developed as a graphical representatin of the spinor-helicity method. In this method, Feynman diagrams are directly represented in terms of chirality-flow lines corresponding to spinor inner products, without the need to resort to intermediate algebraic manipulations. In this talk the completed massless QED and QCD cases will be discussed. Also, preliminary work extending the chirality-flow formalism to the massive case, and hence the full standard model, will be discussed.