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Recent developments on EPOS

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Currently, EPOS-LHC is the public EPOS version, heavily used by experimental groups in high energy and cosmic ray physics. It is based on an S-matrix approach, being the ideal framework for multiple scattering in small systems. However, factorization and binary scaling does not come for free, it is a very complex issue, and in the current model it is simply not properly done. Another topic concerns flow, which is only implemented as "parameterized" which quite limited application. There was substantial progress during the past few year, referred to as "EPOS4 project", to develop a consistent formalism, which accommodates a multiple scattering S-matrix approach, factorization, and saturation, all of these topics being closely related to each other. In addition, secondary interactions are considered, most importantly a full hydrodynamic evolution. In this talk, we will report about the status of the EPOS4 project.

Primary author: Prof. WERNER, Klaus

Co-author: Dr PIEROG, Tanguy (KIT)

Presenter: Prof. WERNER, Klaus

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