

## A new string hadronization model

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In this report a new Model of the hadronization process is presented. It is based on the mechanism of fragmentation of relativistic Nambu-Goto strings with massive quarks at the end-points. To steer the fragmentation process, the area decay law is used.

Modern string-based hadronization models (like in PYTHIA or EPOS LHC) operate with initially point-like strings, which significantly constraints the possibility to consider new mechanisms that take part in hadronic interactions at high energies.

The new Model, called ATROPOS, uses, however, the so-called generalized initial conditions that define the string at the moment of creation. This also allows (for the first time ever!) to implement the total angular momentum conservation during hadronization.

The usage of the modified Nambu-Goto action that considers the mass of heavy quarks at the string end-points allows to derive the fragmentation of heavy  $c$ - and  $b$ -quarks from the first principles of the theory and does not require any approximations or phenomenology.

Along with Model description, first results of the simulation of hadronization in  $ee \rightarrow qq\bar{q}$  events are presented.

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