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## Simulations of charged hadron and charmed meson production in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with HYDJET++ generator

HYDJET++ is a Monte Carlo event generator merging parametrized soft part inspired by hydrodynamics with hard part containing jets. It has been successful to describe particle production in Pb+Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV energies. In this poster we present for the first time the particle spectra and collective flow for top LHC energy  $\sqrt{s_{NN}} = 5.02$  TeV Pb+Pb collisions. Specifically we used the HYDJET++ model version 2.4 to simulate spectra of charged particles,  $D^0$  and  $J/\psi$  mesons and related  $v_2$  and  $v_3$  azimuthal flow harmonics. The particle spectra and flow haromines are studied in different centrality bins ranging from 0-10% up to 30-50% centrality in midrapidity region for charged particles and  $D^0$  mesons and in forward rapidity in case of  $J/\psi$  mesons. The simulated results have been compared to experimental data from the ALICE and ATLAS experiments in order to tune the HYDJET++ generator to get the most optimal agreement with the data.

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## **Collaboration / Activity**

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