



## Measurements of spin alignment of vector mesons and global polarization of hyperons with ALICE at the LHC

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Spin alignment of vector mesons (e.g.  $K^{*0}$ ) and global polarization of hyperons (e.g.  $\Lambda$ ) in non-central high energy heavy-ion collisions could occur due to large initial angular momentum of the system. The spin alignment could also occur during the process of hadronization. The spin alignment of  $K^{*0}$  is measured using a parameter  $\rho_{00}$  characterising the angular distribution of the vector mesons w.r.t. the normal to the production plane at midrapidity. The measurements of  $\rho_{00}$  will be presented for pp collisions at  $\sqrt{s} = 13$  TeV and for Pb-Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV. The centrality dependence of  $\rho_{00}$  will also be presented. The  $\rho_{00}$  values for  $K^{*0}$  vector mesons are compared to the corresponding values for  $K_S^0$  mesons in Pb-Pb collisions. The global polarization measurements for  $\Lambda$  and  $\bar{\Lambda}$  hyperons will be presented for different collision centralities in Pb-Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV. The dependence of global polarization of hyperons on their transverse momenta and rapidity will also be presented.

### List of tracks

QCD phase diagram (BES)

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