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## **Muon puzzle: possible approach to the solution**

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The muon puzzle has been one of the most intriguing problems in cosmic ray physics over the past few years. The contradiction between the experimental data and simulation results suggests the presence of physical processes that go beyond the framework of contemporary hadronic interaction models. One of these approaches is based on the hypothesis that strongly polarized blobs of quark-gluon plasma which decay to heavy particles are formed in non-central nucleus-nucleus collisions. In this work, the influence of the production of these heavy particles on the EAS development,  $\mu/e$ -ratio and measured shower energy is considered.

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