

Effects of rho-meson width on pion distributions and anisotropies in heavy-ion collisions

We study the influence of the finite width of rho meson on the pion momentum distributions and anisotropies. We evaluate the rho-meson properties in the S-matrix framework, and implement them in the hydrodynamical description of the expansion dynamics.

We show that the proper treatment of rho mesons modifies the spectrum of daughter particles, and thus the final observable distributions [1]. In particular the yield of pions at low p_T increases, which improves the description of the pion spectrum obtained in the heavy-ion experiments.

[1] P. Huovinen, P.-M. Lo, M. Marczenko, K. Morita, K. Redlich, C. Sasaki, arXiv:1608.06817

Preferred Track

Collective Dynamics

Collaboration

Not applicable

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