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Centrality and system size dependence of the thermal dilepton excess yield in HADES

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Electromagnetic probes offer a unique opportunity to study the conditions in heavy-ion collisions throughout their whole evolution. In particular, the spectral shapes of dilepton distributions entail information about the temperature of the hot and dense fireball, while the integrated dilepton yield is connected to its lifetime.

In this poster, measurements of dilepton observables are presented for varying centralities and for two collision systems: Au+Au and Ag+Ag at $\sqrt{s_{NN}} = 2.42$ GeV.

While the collision centrality as well as beam energy are arguably the two major determinants for the conditions reached within the hottest and densest stage of the collision, the impact of the overall system size is less clear. Therefore, the Au+Au collisions are compared with Ag+Ag collisions at the same mean amount of participating nucleons $\langle A_{part} \rangle$ to provide insights about the system size dependence. First results on thermal dilepton anisotropy and anisotropy coefficients will also be presented.

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