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System size dependence of tetraquark production in heavy ion collisions

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Using the coalescence model, we calculate the multiplicities of $X(3872)$ and T_{cc}^+ at the end of the quark gluon plasma phase in nucleus-nucleus collisions at the LHC. Then, using effective lagrangians and a rate equation, we calculate the changes in these multiplicities during the hadron gas phase. Finally, we present the multiplicities at the end of the collisions and also plot them as a function of $dN/d\eta(\eta = 0)$, which gives a measure of the system size. We discuss the possibility of discriminating compact tetraquark from extended molecular configurations. This talk is based on arXiv:2202.10882 and on arXiv:2110.11145 .

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