

Signatures of α clustering in Light Nuclei from Relativistic Nuclear Collisions

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1. The simulation is done for $\sqrt{s} = 17$ GeV of $^{12}\text{C}-^{208}\text{Pb}$. Is this energy sufficient enough to form QGP? (**Rekam**)
2. What is Glauber Monte Carlo ? What is an expulsion distance and why did they use 0.9 fm for it in this paper? (**Abinash**)
3. Is the radial distribution of nucleons in nuclei and clusters just guessed to be Gaussian or is this actually seen experimentally? If assumed, what are the justifications of this assumption? (**Matt**)
4. How were the FMD model calculations done? (**Mamun**)
5. What is this eccentricity and why is there so much emphasis on it in this paper? How are eccentricities related to the "deformations" discussed in the paper? How are v_2 and v_3 related to ϵ_2 and ϵ_3 ? (**Taya**)
6. Why may α clustering may lead to greater deformation in light nuclei? (**Mongi**)
7. Is it possible for a large nucleus to have a high triangularity and another nucleus of the same type to have high ellipticity? (**Tyler**)
8. Are there any signatures observed for α clustering from low energy experiments? If so do the high energy experiments offer any thing superior in terms of measurements ? (**Andrea**)
9. Why is this paper considering only triangular shape of alpha-clustering? Is it possible to have linear alpha-clustering instead of triangular? If not, why? (**Doug**)
10. Do we expect to get the same physics and results if we use ^8Be , ^{16}O or ^{20}Ne instead of ^{12}C What would change and what would be the same? (**Kristyn**)
11. What is Hoyle state of ^{12}C ? How do we know that the Hoyle state is triangular shaped? (**Bishnu**)
12. How were the BEC calculations done? (**Shiv**)