

New Measurement of the Direct Decay from the ^{12}C Hoyle State

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- 1) Is the energy of a ^{12}C Hoyle state equal to the sum of 3 ground state alpha particles? (**Joey**)
- 2) How does the Hoyle state fix the problem with carbon production in the universe? (**Taya**)
- 3) What is ^8Be ground state ghost anomaly? (**Mamun**)

- 4) What is a Dalitz plot? How is it constructed? What is a **symmetric** Dalitz plot?(**Tyler**)
- 5) How is equation 1 found, and how can it be related to the Dalitz plot with mass squared distribution? (**Som**)
- 6) How is the sequential decay said to be dominant from the points in fig. 3? (**Sudhanva**)

- 7) Why are there two layers of the silicon detectors to measure the scattered ^4He ?(**Kristyn**)
- 8) In the experimental setup, why don't all the detectors measure both energy and spatial scattering (including particle identification)? (**Doug**)
- 9) Instead of an alpha Beam, could a different beam, such as a proton beam, be used? Why did they use an alpha beam? (**Shiv**)
- 10) What does the beam current unit enA mean? How is it different from nanoamps?(**Utsav**)
- 11) How did they separate all the background from the 3 alpha signal? (**Abinash**)
- 12) How was the upper limit of the direct decay affected by experimental resolution?(**Bishnu**)

- 13) How is the sequential and direct decay simulated in Monte Carlo? (**Matt**)