## WPCF 2024 - 17th Workshop on Particle Correlations and Femtoscopy



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## **Exploration of Nuclear Clustering via Compound Decay Pathways**

mardi 5 novembre 2024 15:00 (15 minutes)

In recent years, experimental efforts have been dedicated to exploring the extent of clustering in excited nuclei. Of these, a particular emphasis in  $\alpha$ -clustering has been fostered due to its various influences, such as those in astrophysical processes. A series of measurements of every  $\alpha$ -conjugate nucleus in the mass range  $16 \le A \le 36$  impinged on  $^{12}\mathrm{C}$  at  $35~\mathrm{MeV/u}$  was recently conducted with the Forward Array Using Silicon Technology (FAUST) at the Texas A&M University Cyclotron Institute with the intent of exploring decay pathways of various nuclei produced through charged particle emission.

FAUST possesses excellent position resolution and therefore angular resolution. In this talk I will present preliminary results of multi-particle correlations probing resonant states and decay pathways.

Auteur principal: HARVEY, Bryan (Texas A&M University, Cyclotron Institute)

**Co-auteurs:** M. HANKINS, Travis (Texas A&M University, Cyclotron Institute); Dr MCINTOSH, Alan (Texas A&M University, Cyclotron Institute); Dr HAGEL, Kris (Texas A&M University, Cyclotron Institute); Dr YENNELLO, Sherry (Texas A&M University, Cyclotron Institute)

Orateur: HARVEY, Bryan (Texas A&M University, Cyclotron Institute)