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## Characterisation of potential cluster states in $^{16}\text{O}$

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**Abstract content** (Max 300 words) **Formatting & Special chars**

A notable candidate for alpha clustering is the 15.097 MeV  $0^+$  state in  $^{16}\text{O}$ , observed above the  $4\alpha$  threshold at 14.437 MeV. This state is predicted using several theoretical formalisms such as the OCM (Orthogonality Condition Model) and TSHR (Tohsaki-Horiuchi-Schuck-Röpke) approaches. The decay path of this state has been characterised using inelastically scattered  $\alpha$ -particles at zero-degrees with a silicon detector array at backward angles.

**Apply to be considered for a student award (Yes / No)?**

Yes

**Level for award (Hons, MSc, PhD, N/A)?**

MSc

**Main supervisor (name and email) and his / her institution**

Prof. Paul Papka, papka@sun.ac.za, Stellenbosch University

**Would you like to submit a short paper for the Conference Proceedings (Yes / No)?**

No

**Please indicate whether this abstract may be published online (Yes / No)**

Yes

**Primary authors:** Mr LI, Kevin (Stellenbosch University, iThemba Labs); Dr PAPKA, Paul (Stellenbosch University); Dr ADSLEY, Phillip (Stellenbosch University, iThemba Labs); Dr NEVELING, Retief (iThemba LABS)

**Co-author:** Dr SMIT, Frederick David (iThemba LABS)

**Presenter:** Mr LI, Kevin (Stellenbosch University, iThemba Labs)

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