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Spectroscopy of the low-lying excitation region in ${}^9\text{B}$

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Abstract content
 (Max 300 words)
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The structure of $A=9$ nuclei are relevant in nuclear astrophysics. The measurement of the low-lying excited states in Boron-9 nucleus through the ${}^9\text{Be}({}^3\text{He}, t){}^9\text{B}$ reaction, with the K600 spectrometer in conjunction with a segmented silicon detector array will be performed at iThemba LABS facility. Of particular interest is the conclusive observation and characterisation of the first $1/2^{+}$ state in Boron-9. By accurately measuring the excitation energy of this state, we aim to obtain the Coulomb Energy Difference (CED) between isobaric analog $1/2^{+}$ states in the Boron-9 and Beryllium-9 mirror pair to address discrepancies that currently exist between theoretical models in describing these nuclei.

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

No

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

N/A

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

Prof. Smarajit Triambak

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

Yes

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Yes

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