

Wednesday

Nov 13th

At Noon



During Brown Bag Luncheon

¹¹O AND OTHER INVARIANT MASS RESULTS AT, BEYOND OR ISOBARICALLY ANCHORED TO THE PROTON DRIP LINE

Abstract:

The reconstruction of the continuum of light nuclei using the invariant mass technique has allowed us to: reconstruct three previously unobserved nuclides, find many new excited states, improve level properties of known levels, find one (and perhaps a second) case of sequential 2p-2p decay, discover 2p decay between isobaric analog states, study the decay of the Hoyle state, find an unappreciated mechanism for the generation of extreme nuclear spin alignments, complete or reduce uncertainties of several isospin multiplets, and find several new near-threshold resonances. Our work impacts every isobar from A=5 to A = 18. This talk will discuss how these experiments are done, present a survey of some of the results mentioned above and then focus on the recent discovery of ¹¹O (the mirror of the iconic ¹¹Li) and explaining near-threshold resonances in ⁹Li and ¹⁰Be. In these cases continuum cognizant shell models are exploited to shed light on the not-so-obvious entanglement of the continuum (or continua) with structure.

**CYCLOTRON
COLLOQUIUM
during Brown
Bag
Luncheon**

Fred Abegglen -
updates

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Lee Sobotka

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**Dept. Of
Chemistry
and Physics**

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**Washington
University**

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**CYCLOTRON
INSTITUTE**

Room 228

Refreshments will be
served at noon



TEXAS A&M
UNIVERSITY