

## Structure and correlations in light neutron-rich unbound systems

*Wednesday, 8 March 2023 16:10 (30 minutes)*

Investigating the properties of nuclei far from the line of beta-stability is one of the central themes of present day nuclear physics. In this presentation, experiments employing nucleon removal from high-energy secondary beams to explore the most neutron-rich isotopes of beryllium through nitrogen will be briefly discussed through selected examples. In terms of the evolution of shell structure, these nuclei are of particular interest as they encompass the N=14 and 16 sub-shell closures below doubly magic 22,24O. Furthermore, in the case of the two-neutron unbound systems, they offer a possible window on neutron-neutron correlations.

Prospects at the RIBF, associated with an ongoing upgrade in the neutron detection capabilities, will also be briefly touched on.

### Experimental study on nuclear physics

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