

FROM LIGHT NUCLEI TO ASTROPHYSICS

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TRIUMF

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Ab-initio nuclear theory aims at a comprehensive study of the properties of nuclei starting from strongly interacting protons and neutrons and at an understanding of their role in astrophysics. The forces among nucleons are linked to the fundamental theory of quantum-chromodynamics through an effective field theory approach. The description the complex nature of nuclei arising from such forces is becoming reality and one can aim at a unified description of structure and reaction properties of nuclei. In particular, I will talk about nuclear reactions induced by electro-weak probes. Because the electro-weak component is well understood, one can study the desired strong dynamics via a comparison with available experimental data as well as provide predictions for reactions that play a key role in astrophysics scenarios.

Nuclear
Seminar

All interested
persons are
cordially
invited to
attend.