

Abstract for an Invited Paper  
for the NWS10 Meeting of  
The American Physical Society

**Recent Progress and Open Problems in Nuclear Astrophysics<sup>1</sup>**

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Nuclear astrophysics is the study of the thermonuclear reactions that power the stars and are responsible for the creation of the chemical elements. At TRIUMF, Canada's national laboratory for particle and nuclear physics, accelerated beams of stable and radioactive nuclei permit the direct study of these reactions. I will describe some of our recent efforts to determine the rates of thermonuclear reactions important in the Sun, red giants, novae, and x-ray bursts on accreting neutron stars.

<sup>1</sup>Supported by the Natural Sciences and Engineering Research Council of Canada.