

## THE ARIEL FACILITY AT TRIUMF, SCIENCE OPPORTUNITIES AND STATUS

Jens Dilling<sup>1,2</sup>

<sup>1</sup>TRIUMF, 4004 Wesbrook Mall, Vancouver BC, V6T 2A3 Canada

<sup>2</sup>Department of Physics & Astronomy, University of British Columbia, Vancouver BC, V6T 1Z1 Canada

for the ARIEL collaboration.

The ARIEL (Advanced Rare IsotopE Laboratory) at TRIUMF is a major upgrade of the isotope production and separation capabilities for ISAC. ARIEL is a Canadian university driven CFI (Canada Foundation of Innovation) project and will consist of a dual production system with both electron and proton primary beams and a novel target and isotope separation front-end. The electron beam enables photo-fission or gamma-n reactions, while the proton beam provides spallation, fission, and fragmentation isotope production. Together with the existing ISAC production station, three parallel rare isotope beams will be available for experiments. The fully funded project is currently being constructed, and first beam will be available for science in 2019. In this talk, I will outline the science opportunities with isotopes and purification methods at ARIEL and present the current status.