



Canadian Association  
of Physicists

Association canadienne  
des physiciens et physiciennes

Contribution ID: 3963

Type: **Invited Speaker** / Conférencier(ère) invité(e)

## (I) ARIEL at TRIUMF - The Next Generation ISOL Facility for the Production of Rare Isotope Beams

*Monday 19 June 2023 16:00 (30 minutes)*

TRIUMF, Canada's Particle Accelerator Centre, delivers beams for fundamental science and a wide range of accelerator-based applications.

World-leading in radioisotope beam production, TRIUMF-ISAC is the only ISOL facility that is routinely operating targets under particle irradiation in the high-power regime in excess of 10 kW. TRIUMF's current flagship project ARIEL, Advanced Rare Isotope Laboratory, is adding two new target stations providing isotopes to the existing experimental stations in ISAC I and ISAC II at keV and MeV energies, respectively. In addition to the operating 500 MeV, 50 kW proton driver from TRIUMF's cyclotron, ARIEL will make use of a 35 MeV, 100 kW electron beam from a new TRIUMF designed and built superconducting linear accelerator. Together with additional 200 m of RIB beamlines within the radioisotope distribution complex, this will put TRIUMF in the unprecedented capability of delivering three RIB beams to different experiments, while producing radioisotopes for medical applications simultaneously –enhancing the scientific output of the laboratory significantly.

### Keyword-1

Accelerator

### Keyword-2

Radioisotope beams

### Keyword-3

TRIUMF

**Author:** GOTTBERG, Alexander (TRIUMF (CA))

**Presenter:** GOTTBERG, Alexander (TRIUMF (CA))

**Session Classification:** (DAPI) M3-6 Accelerator Physics and Instrumentation | Physique des accélérateurs et instrumentation (DPAI)

**Track Classification:** Technical Sessions / Sessions techniques: Applied Physics and Instrumentation / Physique appliquée et de l'instrumentation (DAPI / DPAI)