

## Postdoc Researcher – TIGRESS TIP Comp #608

[TRIUMF](#) is Canada's national laboratory for particle and nuclear physics and accelerator-based science. We are an international centre for discovery and innovation, advancing fundamental, applied, and interdisciplinary research for science, medicine, and business.

In support of our Nuclear Physics program, we are currently recruiting to immediately fill a postdoctoral research position in our Gamma-Ray Spectroscopy group. This group is involved in a number of programs investigating a variety of nuclear structure, nuclear astrophysics, and fundamental symmetries topics at TRIUMF's Isotope Separator and Accelerator ([ISAC](#)) ISOL radioactive beam facility. A large fraction of the group's research is focussed around the TRIUMF-ISAC Gamma-Ray Escape Suppressed Spectrometer ([TIGRESS](#)), a modern gamma-ray spectrometer for experiments with accelerated radioactive ion beams provided by the new ISAC-II superconducting linac.

The successful candidate will have the opportunity to lead and support basic research experiments utilizing infrastructure supported by the Gamma-Ray Spectroscopy at ISAC (GRSI) NSERC project grant, with emphasis on Recoil Distance Method measurements of gamma-ray lifetimes in experiments with accelerated beams and the SFU TIGRESS Integrated Plunger (TIP). The successful applicant will be expected to:

- Lead and participate directly in research with devices the group operates under the GRSI project, including but not limited to gamma-ray lifetime measurements in N~Z nuclei and tests of ab initio theory techniques
- Set up, optimize, operate and maintain TIP and the TIGRESS spectrometer, its component detectors, data acquisition system and ancillary detector systems
- Coordinate TIP experimental campaigns
- Disseminate results as articles in peer-reviewed scientific journals and at national and international conferences and workshops
- Supervise undergraduate and/or graduate students

Applicants must demonstrate extensive knowledge of contemporary nuclear structure, nuclear science, radiation measurement, and operation of radiation detectors. Knowledge of high-purity germanium detectors, caesium iodide detectors, and plunger apparatus are essential to the effectiveness of this position. Experience with both general and scientific computing and analysis of data from nuclear science experiments is also required. Qualifications include a recent or imminent Ph.D. in nuclear physics or nuclear chemistry, and those individuals who are expecting to complete a PhD within four months are encouraged to apply. A vision for leading an experimental program within the GRSI project, and familiarity with N~Z nuclear structure and ab initio theoretical techniques would be a definite asset. Experience with data simulation and analysis with C++, GEANT and ROOT, beryllium handling and with target foil fabrication and handling, will all also be assets.

This grant funded position will be based at TRIUMF and the term of employment will be based on an initial commitment to a one year term. This may be renewed annually for a second and third term, based on mutual satisfaction and continued grant funding. Salary will be competitive depending on experience. The position is available as early as January 2018.

When submitting your application as detailed below, please include a detailed CV with a list of publications, and arrange for 3 letters of recommendation or reference to be sent directly to the email below.

TRIUMF is an equal opportunity employer committed to diversity in the workplace, and we welcome applications from all qualified candidates. Your complete application package should be submitted by email to [recruiting@triumf.ca](mailto:recruiting@triumf.ca) and will include the following in one complete PDF file:

- Subject line: Competition 608
- [Employment Application Form](#)
- Cover letter indicating salary expectations
- CV

**Applications will be accepted until the position is filled**