

Canada's national laboratory for particle and nuclear physics Laboratoire national canadien pour la recherche en physique nucléaire et en physique des particules

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Ceremony Celebrates Canadian Cyclotron Prowess-at TRIUMF

(Vancouver, BC) — A special ceremony on Thursday, December 16, 2010, at 10:00 a.m. celebrates the recognition of first beams from TRIUMF's main cyclotron in 1974 as an engineering milestone for Canada. IEEE, the world's largest professional association for the advancement of technology, is dedicating a pair of plaques in French and English to commemorate the award announced earlier in August.

The ceremony will be held at TRIUMF atop the concrete vault surrounding the main cyclotron. In addition to representatives from IEEE and the federal and provincial governments, three members of the pioneering team that helped design, build, and commission the device will be giving historical perspectives on the challenges and successes of this marvel of science, technology, and engineering.

The cyclotron at TRIUMF is the world's largest such device and while it is not the world's highest energy accelerator (that distinction belongs to the LHC at CERN in Geneva, Switzerland), it is one of the most intense. The TRIUMF cyclotron produces an intense beam of protons at energies of up to 500 million electron volts and with speeds up to 75% the speed of light.

The success of the TRIUMF cyclotron helped drive the commercialization of smaller cyclotrons for medical uses such for the production of medical isotopes. Advanced Cyclotron Systems, Inc., in Richmond, BC, is a current world leader in this area and was formed directly on the success of the TRIUMF activities.

Since first beams were established, the TRIUMF cyclotron has been the primary engine behind a wide variety of programs including proton-based therapies for selected eye cancers, pre-flight irradiation tests and studies of aerospace components, production of selected medical isotopes, and a broad program of research in particle and nuclear physics and materials science.

The text of the plaque reads:

First 500 MeV Proton Beam from TRIUMF Cyclotron, 1974.

At 3:30 p.m. on 15 December 1974, the first 500 MeV proton beam was extracted from the TRIUMF cyclotron. Since then TRIUMF has used proton beams from its cyclotron (and secondary beams of pions, muons, neutrons, and radioactive ions produced in its experimental halls) to conduct pioneering studies that have advanced nuclear physics, particle physics, molecular and materials science, and nuclear medicine.

Please see URL http://www.triumf.ca/Home/Upcoming%20Events/IEEE%20Engineering%20Milestone%20Ceremony.

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About TRIUMF

TRIUMF is Canada's national laboratory for particle and nuclear physics. Located on the south campus of the University of British Columbia, TRIUMF is owned and operated as a joint venture by a consortium of the following Canadian universities, via a contribution through the National Research Council Canada: University of Alberta, University of British Columbia, University of Calgary, Carleton University, University of Guelph, University of Manitoba, McMaster University, University of Northern British Columbia, Université de Montréal, Queen's University, University of Regina, Saint Mary's University, Simon Fraser University, University of Toronto, University of Victoria, and York University.

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