

News Release | For Immediate Release

## **Students and Scientists Collide at Particle Physics Masterclasses**

*Program opens the window of cutting-edge physics to aspiring scientists*

(Vancouver, BC) On Saturday, April 18, Simon Fraser University (SFU), TRIUMF and the University of Victoria (UVic) will join over 210 institutes from 42 countries worldwide offering the popular International Masterclass to aspiring particle physicists in the Lower Mainland and Vancouver Island.

Each year in spring, research institutes and universities around the world invite high-school students to experience life at the forefront of particle physics research. The International Masterclass offers students the opportunity to be particle physicists for a day by analyzing real data with authentic tools from the Large Hadron Collider (LHC) at CERN in Europe.

The discovery of the Higgs boson particle at the LHC in summer 2012 led to a surge in news media and public interest in particle physics. The International Masterclass leverages this interest by offering high-school students the chance to interact with local particle physicists doing research at one of the LHC experiments. “Students get to experience what it is really like to do high energy physics shoulder to shoulder with ATLAS research scientists. This program really gives them a taste of how modern physics analysis works,” says Dr. Marcello Pavan, TRIUMF Outreach Coordinator and local Masterclass liaison.

Researchers with the ATLAS experiment at the LHC have made some of their data available for educational use within the program. Students examine the products of collisions between elementary particles that travel through the 27-kilometre accelerator at close to the speed of light. In addition to rediscovering the Z boson or other exotic particles, students will be able to hunt down the elusive Higgs boson hidden in their data sets.

The worldwide participation reflects the true international nature of particle physics. In a video conference at the end of their research day, students present their findings to peers at other institutions, much as particle physicists do in their collaborations, allowing them to gain insight into global partnerships within modern research.

The International Masterclass has been very well received by BC students since its introduction in 2011. This year 50 or more students will take part in the classes at SFU, UVic and TRIUMF under the guidance of, respectively, Prof. Dugan O’Neil, Prof. Michel Lefebvre, and Drs. Anadi Canepa and Oliver Stelzer-Chilton, along with their graduate students and postdoctoral fellows. With the growing popularity of the program and ATLAS-Canada scientists being spread across Canada, there are plans to expand the program from coast to coast in the coming years.

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**About the International Masterclass**

The International Masterclass is led by Technical University Dresden and QuarkNet, in close cooperation with the International Particle Physics Outreach Group (IPPOG). IPPOG is an independent group of outreach representatives from countries involved in the research at CERN and other leading research laboratories. The group's goal is to make particle physics more accessible to the public.

**For further information:**

- General Information & Registration for SFU, TRIUMF, UVic classes:  
<http://www.triumf.ca/home/for-students/high-school-programs/atlas-masterclass>
- International Masterclass:  
[www.physicsmasterclasses.org](http://www.physicsmasterclasses.org)
- QuarkNet:  
<https://quarknet.i2u2.org/home>
- International Particle Physics Outreach Group:  
<http://ippog.web.cern.ch>

**Contacts:**

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