



GRIDS 2025

Graduate Instrumentation and Detector School



Arthur B. McDonald
Canadian Astroparticle Physics Research Institute

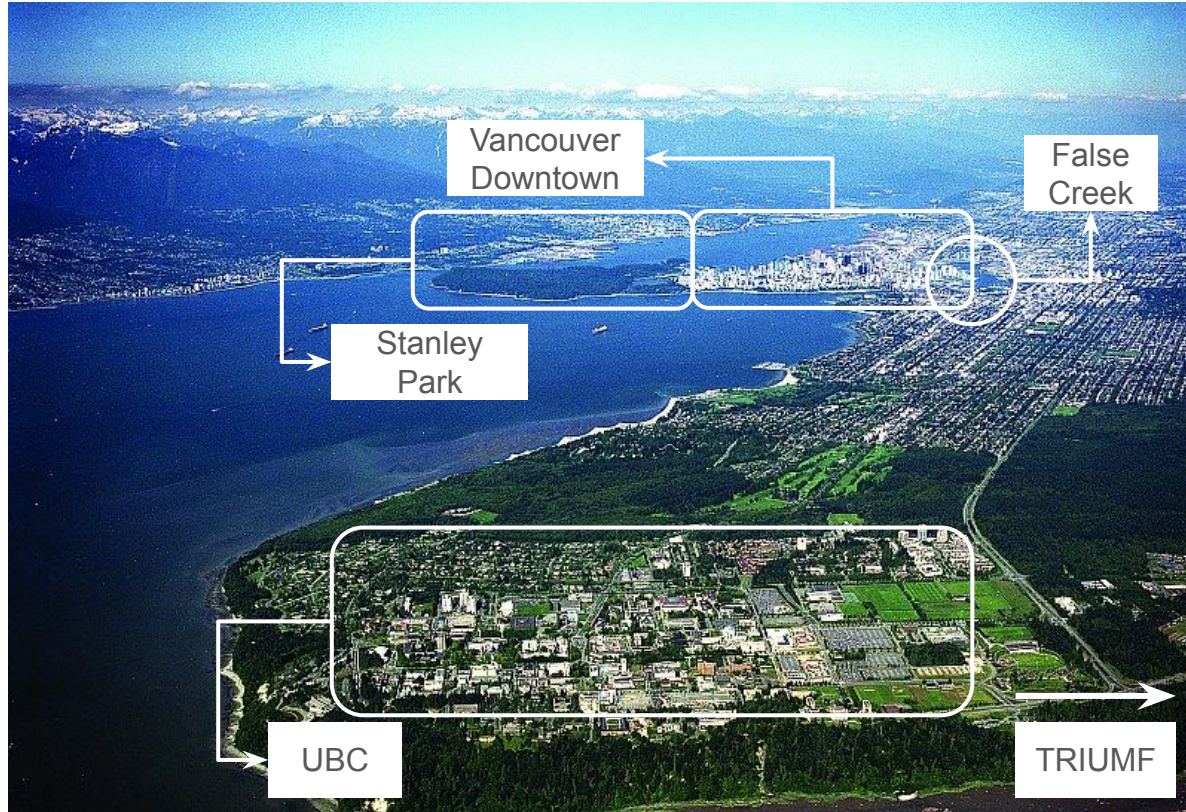
Where Are We?



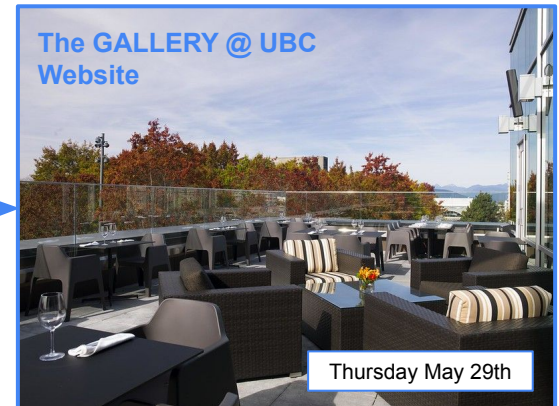
Where Are We?



Where Are We?



Where Are We?



Schedule At Glance

Overview
Timetable
Registration
Experimental Program
Lectures Program
Location & Accommodations
Travel Information
Code of Conduct

Timetable

< Mon 26/05 Tue 27/05 Wed 28/05 Thu 29/05 Fri 30/05 Sat 31/05 Sun 01/06 Mon 02/06 >

Print PDF Full screen Detailed view Filter

08:00	Coffee & Snacks TRIUMF 08:30 - 09:00	
09:00	Introduction & Welcome TRIUMF	Pietro Giampa 09:00 - 09:15
	Lecture: Basic Physics of Radiation Detectors TRIUMF 09:15 - 10:45	
10:00	Labs Transition / Overflow TRIUMF 10:45 - 11:00	
11:00	LAB: TRIUMF Tour + Group Picture (12 o'clock) TRIUMF 11:00 - 12:00	
12:00	Lunch Break	

LECTURE	SPEAKER	DATE / TIME	LOCATION
Basic Physics of Radiation Detectors	Dr. Marcello Pavan (TRIUMF)	26-05-2025 09:15	MOB Auditorium
Data Acquisition Systems & Electronics	Dr. Ben Smith (TRIUMF)	27-05-2025 09:00	MOB Auditorium
Cryogenic Detectors	Prof. Ziqing Hong (University of Toronto)	27-05-2025 10:30	MOB Auditorium
Atomic Physics Techniques for Precision Experiments @ Accelerator Facilities	Dr. Stephan Malbrunot (TRIUMF)	28-05-2025 09:00	MOB Auditorium
Liquid Noble Detectors	Prof. Kenneth Clark (Queen's University)	29-05-2025 09:00	MOB Auditorium
Gas Detectors	Dr. Philippe Gros (Queen's University)	29-05-2025 10:30	MOB Auditorium
Calorimetry & Particle ID	Dr. Katherine Pachal (TRIUMF)	30-05-2025 09:00	MOB Auditorium
Scintillation Detectors	Prof. Juan Pablo Yanez (University of Alberta)	03-06-2025 09:00	MOB Auditorium
Low-Background Techniques	Prof. Jodi Cooley (SNOLAB)	03-06-2025 10:30	MOB Auditorium
Solid State Detectors	Prof. Jennifer Ott (University of Hawaii)	03-06-2025 13:30	MOB Auditorium

<https://indico.triumf.ca/event/574/timetable/#20250526>

Code Of Conduct

LINK

Code of Conduct



TRIUMF is a world-class research institution. As such, we hold ourselves and our community to the highest standard of conduct in scientific, academic, and professional activities. Behaviour or conduct that does not meet these standards interferes with our commitment to foster a productive and healthy environment that supports the organizational vision, mission, and values.

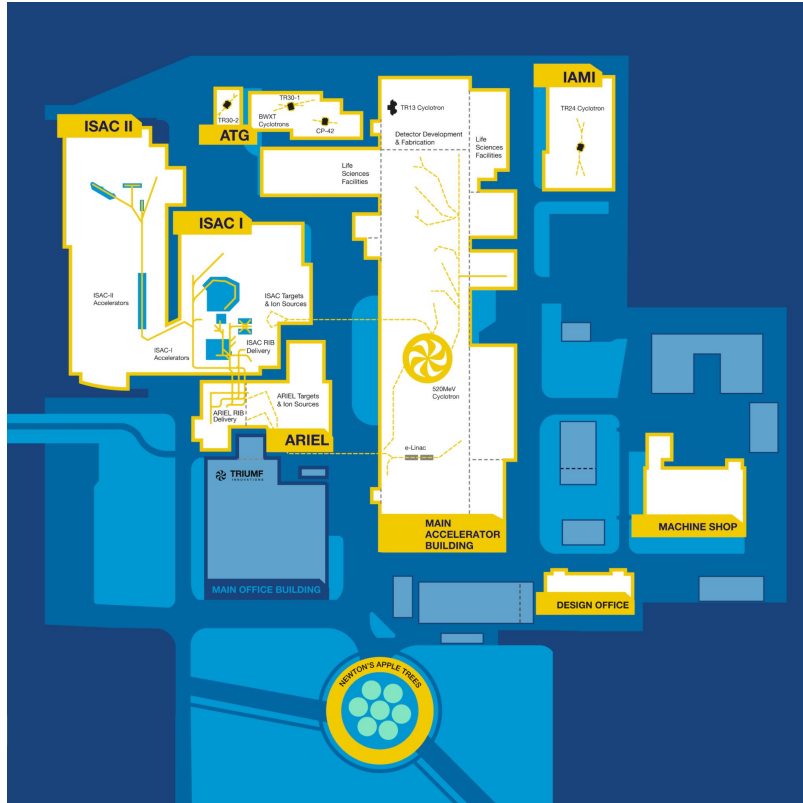
In accordance with our [Core Values](#), TRIUMF is committed to providing a safe and inclusive environment that fosters the exchange of ideas, encourages open and respectful dialogue, and is free of harassment and discrimination. The Code of Conduct establishes the standards of behaviour expected of all members of the TRIUMF community, including employees, students, visitors, contractors, and anyone else accessing our facilities onsite or online. The Code of Conduct facilitates our mission and seeks to make TRIUMF a welcoming and inclusive place for everyone.

We require the TRIUMF community to conduct itself in a respectful and open-minded manner, and to uphold high standards of professional and academic conduct. These include but are not limited to:

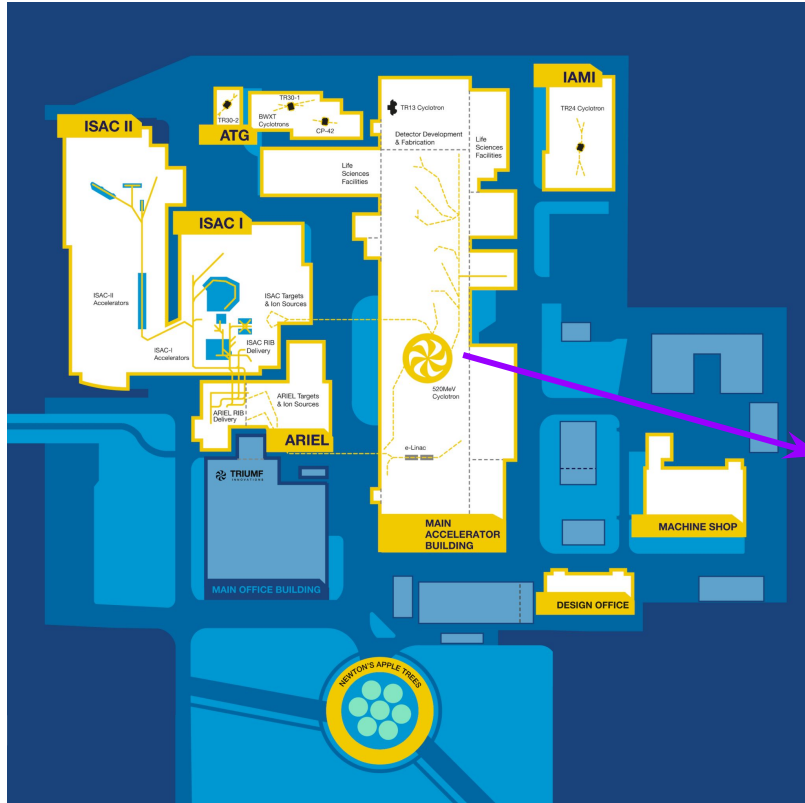
- Using welcoming, supportive, and inclusive language, considering the ways your words may impact others, and being mindful of tone and expression.
- Holding paramount the safety, health, and welfare of the public, including protection of the environment and the promotion of health and safety in the workplace.
- Ensuring every member of a group has the opportunity to participate, both within the facility and in social settings when appropriate.
- Encouraging engagement by all members of the community.
- Holding oneself accountable for one's actions.
- Making yourself aware of pronouns and not deliberately misgendering others.
- Remaining considerate of dietary restrictions, familial obligations, religious observations, and other cultural practices.

A PDF of Release 1 of the full policy can be found [here](#).

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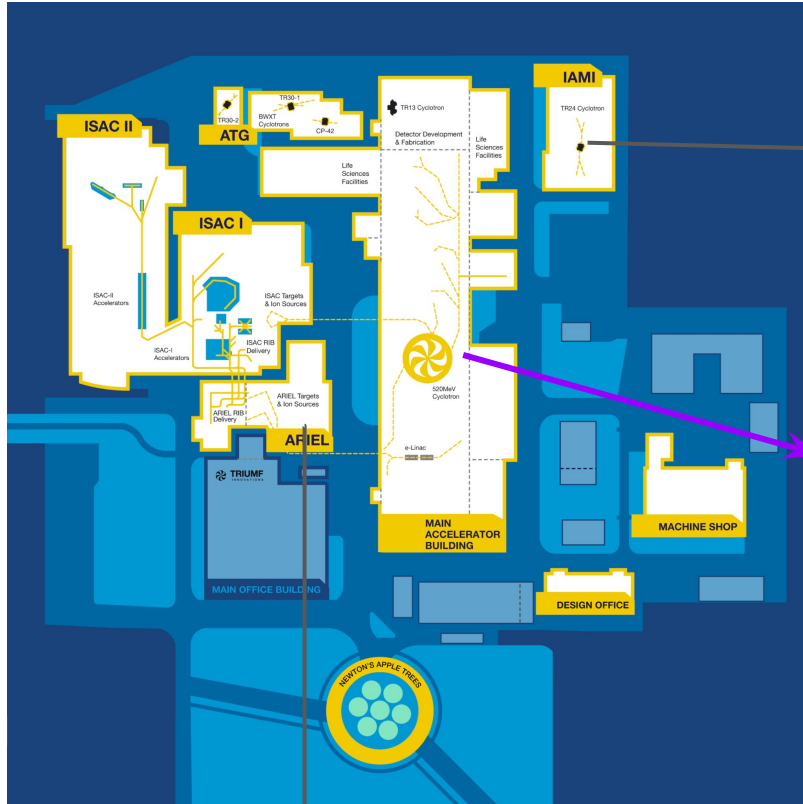


<https://discoverourlab.triumf.ca/tour-our-lab/>

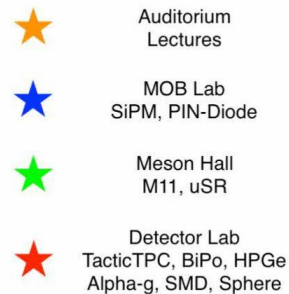


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<https://discoverourlab.triumf.ca/tour-our-lab/>



TRIUMF Fence



- ▶ These laboratories are beyond the TRIUMF radiation fence, and therefore, you will need to be escorted by your demonstrator who will have a monitor radiation badge.

When working in those areas note that you need to coordinate with your demonstrator to use the facilities or leave the area.



Basic Lab-Safety Review

- It's an active laboratory, be mindful of the people working in your area.
- No food or open drinks are allowed in the working areas.
- Let the experiment coordinator handle any radioactive sources.
- Be mindful when operating High Voltage units ($>60\text{V}$).
- When working beyond the fence, make sure to notify your experiment coordinator if you need a break (bathroom, food, drinks). This is to ensure that you always have a dosimeter in your vicinity and someone with adequate training to escort you throughout the facility.
- If you feel like something is not safe, you have the right to stop.
- Anything else, contact your experiment coordinator.



Lab Rotations

NAME	LAB I	LAB II	LAB III	LAB IV	LAB V
<i>Saurabh Sawant</i>	SiPMs	HPGe	PIN-DIODE	BiPo	SMD
<i>Malak Ait Tamlihat</i>	BiPo	HPGe	SiPMs	Tactic-TPC	SMD
<i>Diego Reyes</i>	SiPMs	BiPo	HPGe	PIN-DIODE	SMD
<i>Jon Clarke</i>	SPC	Tactic-TPC	Alpha-g	SiPMs	HPGe
<i>Maya Pipernos</i>	SPC	Alpha-g	SMD	SiPMs	HPGe
<i>Katherine Szabo</i>	SiPMs	SPC	SMD	PIN-DIODE	Alpha-g
<i>Sophie Armbruster</i>	Alpha-g	PIN-DIODE	Tactic-TPC	HPGe	BiPo
<i>Mourad Hidaoui</i>	HPGe	SMD	SPC	Tactic-TPC	BiPo
<i>Andre Klotzbücher</i>	PIN-DIODE	SPC	SMD	Tactic-TPC	Alpha-g
<i>Ruchi Soni</i>	HPGe	Alpha-g	Tactic-TPC	SPC	SiPMs
<i>Carter Garrah</i>	BiPo	PIN-DIODE	SiPMs	HPGe	Tactic-TPC
<i>Dhruval Shah</i>	Tactic-TPC	HPGe	Alpha-g	SMD	SPC
<i>Samantha Taylor</i>	BiPo	SPC	Alpha-g	PIN-DIODE	SiPMs
<i>Leonid Olifer</i>	SMD	Alpha-g	HPGe	SiPMs	SPC
<i>Quinn Malin</i>	Tactic-TPC	PIN-DIODE	BiPo	Alpha-g	SPC
<i>Nathan Molberg</i>	PIN-DIODE	Tactic-TPC	BiPo	SPC	Alpha-g
<i>Kevin Gracequist</i>	BiPo	SiPMs	Tactic-TPC	Alpha-g	PIN-DIODE
<i>Samin Majidi</i>	SMD	BiPo	PIN-DIODE	SPC	HPGe
<i>Gabriel Baloga</i>	Alpha-g	Tactic-TPC	SPC	HPGe	SiPMs
<i>Smitmanns Hendrik</i>	HPGe	SMD	PIN-DIODE	Alpha-g	BiPo
<i>Pranav Bhagawath Prasad</i>	PIN-DIODE	SiPMs	HPGe	BiPo	Tactic-TPC
<i>Tyler Martin</i>	Alpha-g	BiPo	SiPMs	SMD	Tactic-TPC

<https://drive.google.com/file/d/184BYYXZJjLjELfS6lxYYGHYdamTGYDqX/view?usp=sharing>

Lab Rotations - LAB I

Alpha-g (Dr. Andrea Capra):

Sophie Armbruster, Gabriel Baloga, Tyler Martin

BiPo (Prof. Kenneth Clark):

Malak Ait Tamlihat, Carter Garrah, Kevin Gracequist,
Sam Taylor

HPGe (Dr. Ben Broerman):

Mourad Hidaoui, Ruchi Soni, Smitmanns Hendrik

SPC (Dr. Philippe Gros):

Jon Clarke, Maya Pipernos

SiPMs (Dr. Pietro Giampa):

Saurabh Sawant, Diego Reyes, Katherine Szabo

PIN-Diode (Dr. Ali Ashtari):

Andre Klotzbucher, Nathan Molberg, Pranav B. Prasad

Tactic-TPC (Dr. Aleksey Sher):

Dhruval Shah, Quinn Malin

SMD (Prof. Doug Bryman):

Leonid Olifer, Samin Majidi

Lab Rotations - LAB II

Alpha-g (Dr. Andrea Capra):

Maya Pipernos, Ruchi Soni, Leonid Olifer

BiPo (Prof. Kenneth Clark):

Diego Reyes, Samin Majidi, Tyler Martin

HPGe (Dr. Ben Broerman):

Saurabh Sawant, Malak Ait Tamlihat, Dhruval Shah

SPC (Dr. Philippe Gros):

Katherine Szabo, Andre Klotzbücher, Sam Taylor

SiPMs (Dr. Pietro Giampa):

Kevin Gracequist, Pranav B. Prasad

PIN-Diode (Dr. Ali Ashtari):

Sophie Armbruster, Carter Garrah, Quinn Malin

Tactic-TPC (Dr. Aleksey Sher):

Jon Clarke, Nathan Molberg, Gabriel Baloga

SMD (Prof. Doug Bryman):

Mourad Hidaoui, Hendrik Smitmanns

Lab Rotations - LAB III

Alpha-g (Dr. Andrea Capra):

Andre Klotzbücher, Dhruval Shah, Quinn Malin

BiPo (Prof. Tony Noble):

Katherine Szabo, Nathan Molberg

HPGe (Dr. Ben Broerman):

Diego Reyes, Samin Majidi, Pranav B. Prasad

SPC (Dr. Neha Panchal):

Ruchi Soni, Kevin Gracequist

M11 (Dr. Isabel Trigger):

Malak Ait Tamlihat, Leonid Olifer, Hendrik Smitmanns

SiPMs (Dr. Pietro Giampa):

Jon Clarke, Maya Pipernos, Carter Garrah

PIN-Diode (Dr. Ali Ashtari):

Saurabh Sawant, Sam Taylor,

Tactic-TPC (Dr. Aleksey Sher):

Sophie Armbruster, Mourad Hidaoui

SMD (Prof. Doug Bryman):

Gabriel Baloga, Tyler Martin

Lab Rotations - LAB IV

Alpha-g (Dr. Andrea Capra):

Sam Taylor, Pranav B. Prasad

BiPo (Prof. Tony Noble):

Saurabh Sawant, Sophie Armbruster, Quinn Malin

HPGe (Dr. Ben Broerman):

Jon Clarke, Maya Pipernos, Carter Garrah

SPC (Dr. Neha Panchal):

Mourad Hidaoui, Nathan Molberg

M11 (Dr. Isabel Trigger):

Ruchi Soni, Dhruval Shah, Gabriel Baloga

SiPMs (Dr. Pietro Giampa):

Malak Ait Tamlihat, Leonid Olifer, Tyler Martin

PIN-Diode (Dr. Ali Ashtari):

Samin Majidi, Hendrik Smitmanns

Tactic-TPC (Dr. Aleksey Sher):

Andre Klotzbücher, Kevin Gracequist

SMD (Prof. Doug Bryman):

Diego Reyes, Katherine Szabo

Lab Rotations - LAB V

Alpha-g (Dr. Andrea Capra):

Jon Clarke, Nathan Molberg, Kevin Gracequist

BiPo (Prof. Tony Noble):**HPGe (Dr. Ben Broerman):**

Sophie Armbruster, Andre Klotzbücher, Leonid Olifer

SPC (Dr. Neha Panchal):

Gabriel Baloga, Hendrik Smitmanns

M11 (Dr. Isabel Trigger):

Maya Pipernos, Sam Taylor, Tyler Martin, Samin Majidi

SiPMs (Dr. Pietro Giampa):

Mourad Hidaoui, Ruchi Soni, Quinn Malin

PIN-Diode (Dr. Ali Ashtari):

Diego Reyes, Katherine Szabo

Tactic-TPC (Dr. Aleksey Sher):

Malak Ait Tamlihat, Pranav B. Prasad

SMD (Prof. Doug Bryman):

Saurabh Sawant, Carter Garrah, Dhruval Shah

Lab Rotations - LAB V - Backup

Alpha-g (Dr. Andrea Capra):

Jon Clarke, Nathan Molberg, Kevin Gracequist

BiPo (Prof. Tony Noble):

Maya Pipernos, Pranav B. Prasad

HPGe (Dr. Ben Broerman):

Sophie Armbruster, Andre Klotzbücher, Leonid Olifer

SPC (Dr. Neha Panchal):

Gabriel Baloga, Hendrik Smitmanns, Samin Majidi

SiPMs (Dr. Pietro Giampa):

Mourad Hidaoui, Ruchi Soni, Quinn Malin

PIN-Diode (Dr. Ali Ashtari):

Diego Reyes, Katherine Szabo, Tyler Martin

Tactic-TPC (Dr. Aleksey Sher):

Malak Ait Tamlihat, Sam Taylor

SMD (Prof. Doug Bryman):

Saurabh Sawant, Carter Garrah, Dhruval Shah