

# PSD MIXER APRIL 2022

: Friday, April 8, 2022

: 2:30pm

: via Zoom and in the Auditorium

: Join us in person if you're comfortable

: Turn on your camera if you're online (and if you're comfortable)

: Snacks will be available in-person

## ZOOM

<https://ubc.zoom.us/j/66055017219?pwd=aVduRTYxWnovdVRUSFVXdFF4N1hPQT09>

Meeting ID: 660 5501 7219  
Passcode: 183432

## BY PHONE

Join by Telephone - For higher quality, dial a number based on your current location.

Dial Canada:

+1 778 907 2071 (Vancouver)  
+1 647 374 4685 (Toronto)  
+1 647 375 2970 (Toronto)  
+1 647 375 2971 (Toronto)  
+1 204 272 7920 (Manitoba)  
+1 438 809 7799 (Montreal)  
+1 587 328 1099 (Alberta)  
+1 613 209 3054 (Ottawa)

## "WHAT'S THE GIST, PHYSICIST?"

Join us for another Friday afternoon of division updates, science, community, and some food on us!

### Tentative Agenda:

- Division updates w/ Petr (~10 min)
- Q+A w/ Petr (~5 min)
- Science Talk w/ Chris Griffin (~20 min)
- Food and hang-out time!

We hope to see many of you there! As division communication continues to be a challenge, we encourage you to please check in with your colleagues if they received this invite. If they haven't, please reach out to Allayne ([sciencediv@triumf.ca](mailto:sciencediv@triumf.ca)) to let her know!

PLEASE KEEP YOUR MICS  
MUTED

## “SINGLE PHOTON DETECTION, FROM PARTICLE PHYSICS TO CLIMATE CHANGE” – FABRICE RETIERE

Many subatomic physics experiments rely on single photon detection for the detection of ionizing radiation via various light producing processes (scintillation, Cerenkov,...). Single Photon Avalanche Diode (SPAD) arrays, which in their analog configuration are called Silicon photo-multipliers (SiPMs) are best suited for single photon detection compared to their vacuum counterpart (Photomultiplier) when compactness, robustness or/and insensitivity to magnetic field is required. TRIUMF has played a leading role in the development of SPAD arrays for many years, especially for cryogenic applications requiring Vacuum ultra-violet ( $<200\text{nm}$ ) sensitivity. The same technology is now being used for tackling environmental and climate change related issues. This talk will briefly review the state of the SPAD array technology and discuss the non-subatomic physics applications that are being pursued at TRIUMF.