

PSD MIXER MARCH 2022

: Friday, March 11, 2022

: 2:30pm

: via Zoom

: Turn on your camera if you're comfortable!

: Grab a beverage, sit back, and relax!

: At home and have a furry friend? Pet cameos are most welcome!

ZOOM

<https://ubc.zoom.us/j/67710394374?pwd=Z1J2SjJMQTI5cTcvSVBDbGpVRGRSdz09>

Meeting ID: 677 1039 4374
Passcode: 364038

BY PHONE

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

Dial Canada:

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PLEASE KEEP YOUR MICS
MUTED

"WHAT'S THE GIST, PHYSICIST?"

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

Agenda:

- Division updates w/ Petr (~10 min)
- Q+A w/ Petr (~5 min)
- Document Reaffirmation Process w/ Kate Boddy (~10 min)
- Q&A w/ Kate (~5 min)
- Social Activity (~10 min)
- Science Talk w/ Fabrice Retiere: "Single Photon Detection, from Particle Physics to Climate Change" (~20 min)
[Abstract on the following page](#)

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) to let her know!



“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.