

# PSD MIXER

## May 17th

## 2024

: Friday, May 17th, 2024

: 2:30pm

: via Zoom and in the Auditorium

: Pizza will be available in-person

: Kick back, relax, and have fun!

### ZOOM

[https://ubc.zoom.us/j/69013741984?  
pwd=TjlkNUpaRDJ4V1hNRGIOREQwL01SQ  
T09](https://ubc.zoom.us/j/69013741984?pwd=TjlkNUpaRDJ4V1hNRGIOREQwL01SQ_T09)

Meeting ID: 690 1374 1984  
Passcode: 066470

### 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)  
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+1 438 809 7799 (Montreal)  
+1 587 328 1099 (Alberta)  
+1 613 209 3054 (Ottawa)

PLEASE KEEP YOUR MICS  
MUTED

### “WHAT’S THE GIST, PHYSICIST?”


Join us for another afternoon of division  
updates, science, community, and good food!

#### Tentative Agenda:

- Division updates w/ Petr (~20 min)
- Q+A w/ Petr (~5 min)
- “Probing physics beyond the Standard Model with molecular ion  $227\text{ThF}^+$ ” presented by Kia Boon Ng (~20 min). [Abstract on the following page!](#)
- Pizza and pop!

✨ **REJOICE!** ✨

Physical Sciences now has a  
subscription mailing list! [You can  
subscribe here](#) to make sure you get  
all the email updates for the division!



## “Probing physics beyond the Standard Model with molecular ion $^{227}\text{ThF}^+$ ” – Kia Boon Ng

The Standard Model of particle physics is one of the most successful models in explaining how the world works at a microscopic level, but it is considered to be incomplete. Efforts on the theoretical front have sought to extend the Standard Model with new physics to explain intriguing open questions such as the matter-antimatter asymmetry in the universe. New physics can, for example, manifest as electric dipole moments (EDMs) in atomic/molecular or subatomic systems. Measurements of EDMs in these systems can shed light on the nature of new physics. Following a brief overview of general scientific ambitions at RadMol, I will be explaining how we intend to perform quantum control of singly charged thorium-227 monofluoride ( $^{227}\text{ThF}^+$ ) to probe for physics beyond the Standard Model.