

PSD MIXER NOVEMBER 2022

: Friday, November 4, 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/67513171917?pwd=ZzdIVnUxTm1YTHVkSHZCNkRqSzBSUT09>

Meeting ID: 675 1317 1917
Passcode: 352464

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)

PLEASE KEEP YOUR MICS
MUTED

“WHAT’S THE GIST, PHYSICIST?”

Join us for another afternoon of division updates, science, community, and **PUMPKIN PIE!!** 🥧

Tentative Agenda:

- Division updates w/ Petr (~10 min)
- Q+A w/ Petr (~5 min)
- IAMI Update w/ Esther Schirmacher (~10 min)
- “Fun Sym with Atom Traps” – presented by John Behr. [Abstract on the next page!](#)
- **PUMPKIN PIE** and hang-out time!
- **IAMI Tour (please [sign up](#) by 12:00pm November 3rd)**

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!



“FUN SYM WITH ATOM TRAPS” - PRESENTED BY JOHN BEHR

Discrete quantum-mechanical symmetries like parity and time-reversal symmetry often seem quite mathematically formal, yet they have intuitive consequences that translate more-or-less directly into things people can measure. The 1957 discovery that parity was badly broken in beta and muon decay delighted physicists (though Mom's pretty sure a Broadway musical's parity shout-out was unrelated), while the discovery of a tiny bit of time-reversal breaking a decade later was immediately used by Spock v1.0 to save the Enterprise. A recent sensitive neutron beta decay experiment suggests that parity is not completely broken-- that neutrinos can sometimes be right-handed-- and I'll show how our atom trap is directly sensitive to neutrino handedness. If there's time (heh), I'll contrast pseudo-time-reversal in decays with Landau's equationless proof that an electric dipole moment would break time reversal without any theory corrections.