

## QFT Homework 10 Due 1 Dec 2022

This homework is due to <https://uwcloud.uwinnipeg.ca/s/Xks9XWXz9yo5CpG> by 10:59PM on the due date. Your file(s) must be in PDF format; they may be black-and-white scans or photographs of hardcopies (all converted to PDF), PDF prepared by LaTeX, or PDF prepared with a word processor *using an equation editor*.

**Reading Assignment:** Srednicki chapters 22 & 24.

**For a grade** Submit your answers for the following questions

1. **Charge Generates Transformations (in Hamiltonian Formalism)** *Srednicki 22.1* Presentation: Phil
2. **Special Orthogonal Groups** *Srednicki 24.1 & 24.2* Presentation: Bardh

**Not to be marked** Do not submit your answers for the following questions

3. **Canonical Momentum and Translation** *Srednicki 22.2* Presentation: Zunaira
4. **Symplectic Groups** *Srednicki 24.4* Presentation: Naman  
As a hint, split the generator into  $N \times N$  blocks.