

## PY 452: Quantum Physics II Problem Set 9

Due date: **Monday**, November 15 by 5:00pm

**Reading:** Please finish reading chapter 9, sections 2 & 3 of the text on the interaction of radiation with atoms. Please also begin reading chapter 10, section 10.1 on the adiabatic theorem. We will likely start this topic by this Thursday.

### Problems:

1. Text 9.10
2. Text 9.11
3. Text 9.20. Note: some aspects of this problem was worked out as part of the one of the lectures last week. This problem asks you to investigate various consequences of the derivations in lecture.