

Problem Set 1: Due Sept. 8, 2020

1. 2.1, 2.2, 3.1
2. Computation of  $r_s$ : For  $d = 2$  and  $d = 3$ , compute  $r_s$  for a general kinetic energy of the form  $c_n k^n$ . What physical system corresponds to  $d = 2$  and  $n = 1$ ?