

Physics 217, Fall, 2003: Problem Set 5

Due: Tues., Dec. 2. Professor Dine

1. Neglecting the electron mass, calculate the complete vacuum polarization tensor in QED, using the procedure of dimensional regularization. Verify that it is transverse.
2. Peskin and Schroeder, problem 6.3, a and b only (in part b, very crude estimates will be acceptable).