

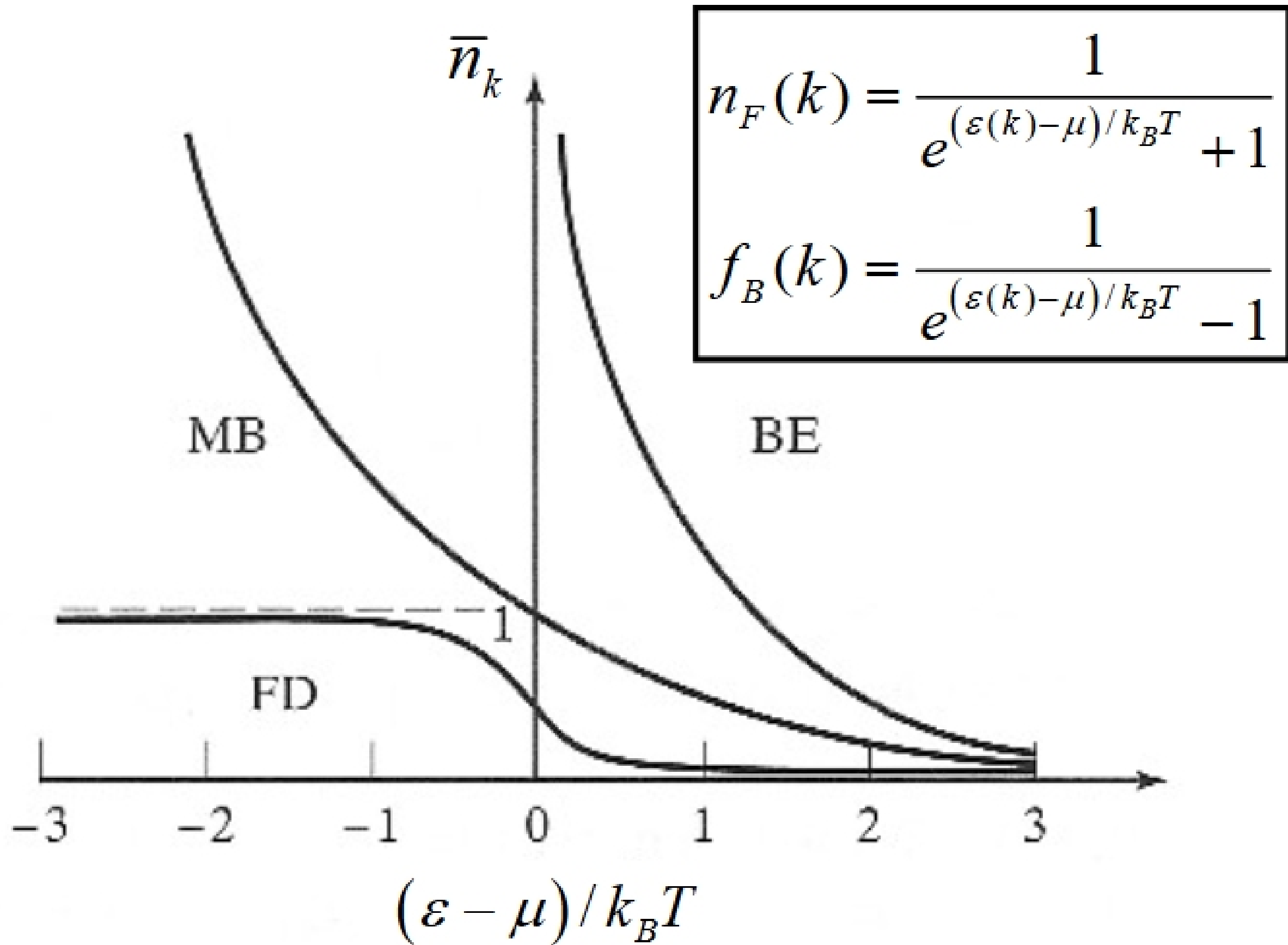
Lecture 36: Fermi and Bose particles

Chapter 10, Friday April 11th

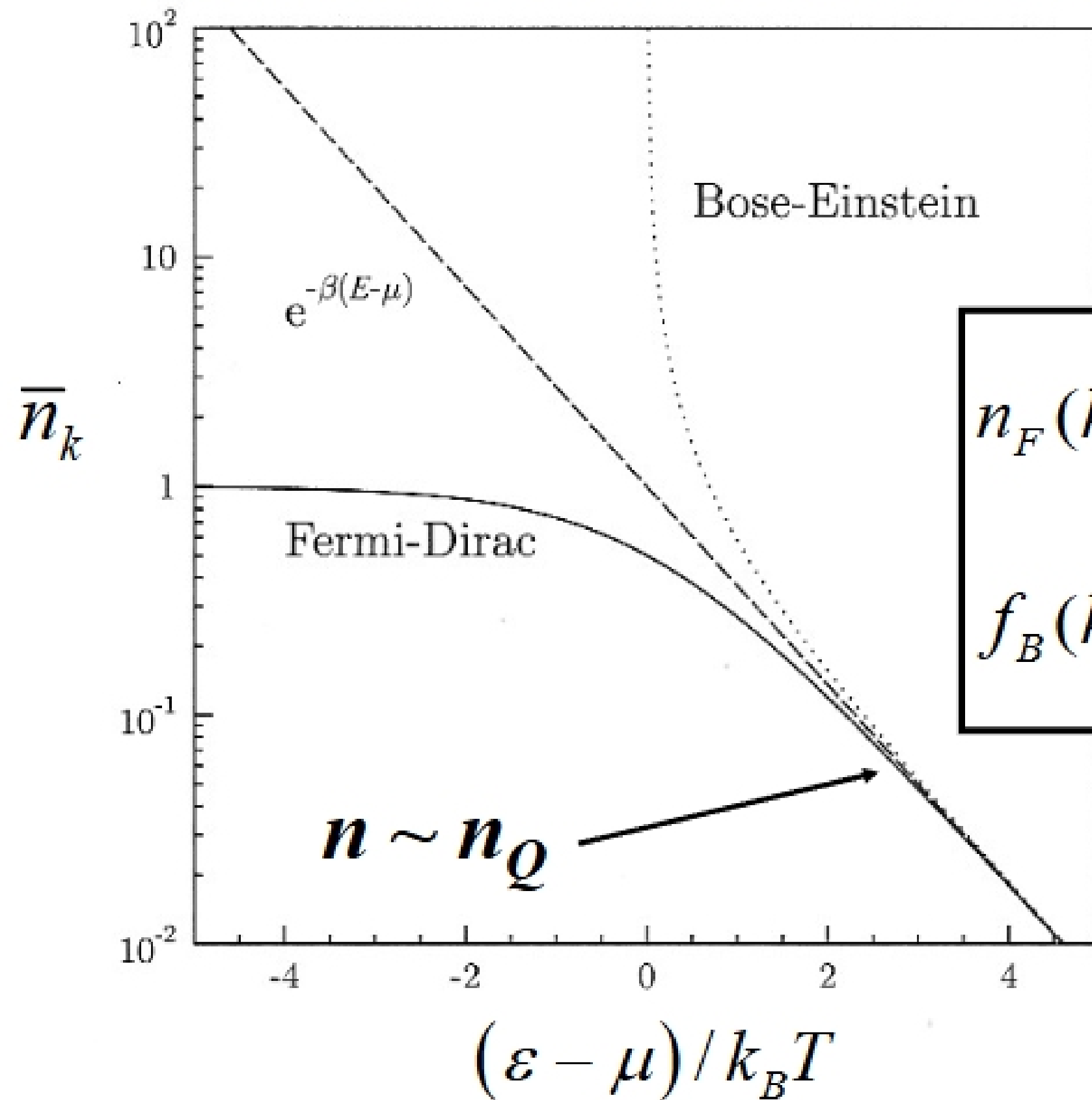
- The Fermi gas at $T = 0$
- Properties of a Fermi gas as $T \rightarrow 0$
- Examples of Fermi systems

Reading: All of chapter 10 (pages 188 - 207)
Homework 10 due Wed. Apr. 16th at 5pm
Assigned problems, Ch. 10:
Exam 3 next Friday (18th), Chs 8-10
Review next week (time/place TBA)

Fermi/Bose distribution functions



Fermi/Bose distribution functions



$$n_F(k) = \frac{1}{e^{(\epsilon(k)-\mu)/k_B T} + 1}$$
$$f_B(k) = \frac{1}{e^{(\epsilon(k)-\mu)/k_B T} - 1}$$

$$n_Q \sim T^{3/2}$$