

Problemset 1: Szabo and Ostlund, Due Wednesday September 27.

Reading material:

- Chapter I, Szabo and Ostlund, pages 1 -38

Chapter I

Chapter I of the classic text book by Attila Szabo and Neil Ostlund discusses basic tools in quantum chemistry. It concerns topics in linear algebra, the Dirac notation, and extensions to function spaces. The Dirac Delta function is covered and a fairly detailed discussion is provided of the variational principle. You are expected to read the text by yourself and then do the problem sets. Most of the material should be familiar.

The assignment consists of problems in Szabo and Ostlund. Many of them require little work but all of them are instructive.

Problems S&O: 1.1, 1.3, 1.4, 1.5, 1.6, 1.8, 1.11, 1.12 a, b, (but not c),
1.13, 1.14, 1.21