

### **3.10 More advanced Neutronic Theory**

As described in the earlier sections of this chapter, there are many approximations that were made during the development of the diffusion theory described above. Consequently, though the one-speed diffusion theory results presented have qualitative instructional value, they are not adequate for practical reactor design. For this much more detailed and complex analyses have been developed but are beyond the scope of this text. For further information on these more advanced calculational methods the reader is referred to texts like Glasstone and Sesonske (1981) or Duderstadt and Hamilton (1976).