

This homework is just a reading assignment: Gerard 't Hooft's lecture notes on *Monopoles, Instantons, and Confinement*, [arXiv:hep-th/0010225](https://arxiv.org/abs/hep-th/0010225).

Please focus on chapter 4 about the Instantons. I am going to talk about them this week, and understanding what instantons do to the fermions is very important.

But you should also skim the other chapters, and then re-read them more carefully after the mid-term test. In particular, read chapter 3 about the magnetic monopoles: We shall need them later in class to understand the electric-magnetic duality at the core of the Seiberg–Witten theory.