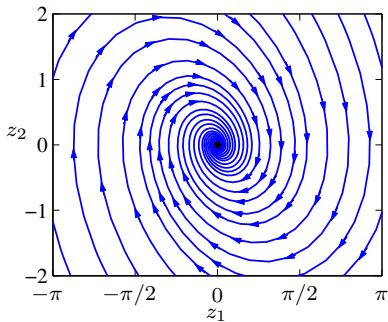


(a) Nonlinear model



(b) Linear approximation

Figure 5.11: Comparison between the phase portraits for the full nonlinear system (a) and its linear approximation around the origin (b). Notice that near the equilibrium point at the center of the plots, the phase portraits (and hence the dynamics) are almost identical.