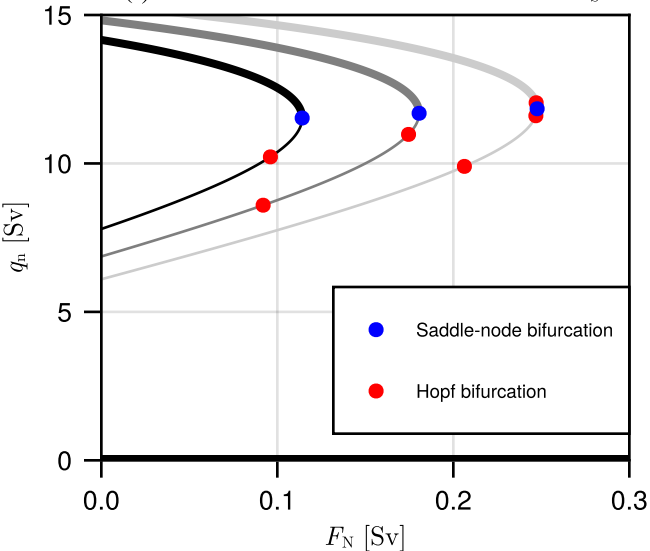(a) Bifurcation Structure for Different F_S

(b) Position of Bifurcations Depending on F_S

Saddle-node bifurcation
Hopf bifurcation

Saddle-node position
Hopf position
Bogdanov-Takens bifurcation