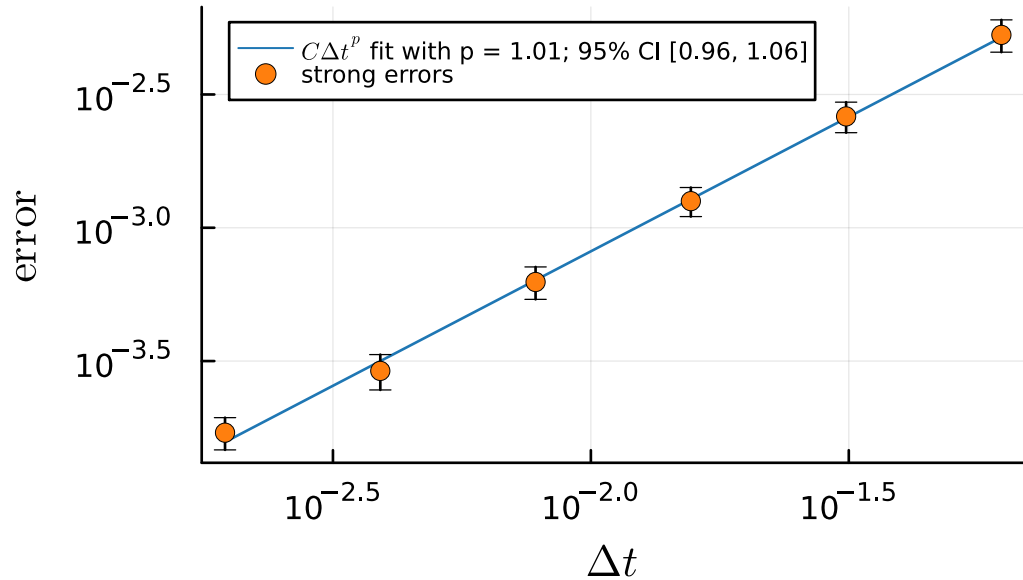


(a) population dynamics



(b) seismic model

