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The Impact of Equilibrium Points on the Shape of Hysteresis Loops

Hysteresis is a phenomenon found in many natural dynamical systems which is typically described as a looping behaviour in the system's input-output graph. For a dynamical system to exhibit hysteresis, it must have multiple stable equilibria. This project examines the impact that different types of stability can have on the shape of the hysteretic loop exhibited in input-output graphs of Ordinary Differential Equations.