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## Machine Learning Approaches to Learn Dynamical Models

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Dynamical modeling of a process is essential to study its dynamical behavior and perform engineering studies such as control and optimization. With the ease of accessibility of data, learning models directly from the data have recently drawn much attention. It is also desirable to construct simple and compact models describing complex nonlinear high-fidelity dynamics for efficient simulations and engineering studies on modest computer hardware. In this direction, we provide an overview of several machine learning approaches to learn dynamical systems. We demonstrate these approaches using several numerical examples.

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