# Balancing Efficiency and Accuracy
# in the Solution of Optimal Control Problems

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**Abstract:** In the numerical solution of optimal control problems, discretization of the underlying dynamical system is an important part of the solution algorithm. The choice of discretization heavily influences computational effort as well as quality of function and derivative evaluations.

Particularly for large-scale dynamical models, as they arise e.g. in chemical engineering, it is necessary to choose discretization schemes that balance the accuracy requirements for a successful optimization against computational effort.

In this contribution we investigate a balancing strategy for adaptation of the discretization scheme and consider algorithmical aspects such as the use of adjoint information which is needed anyway in the optimization procedure.

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