Special Issue

Advances in Numerical Methods for Optimal Control Problems

Message from the Guest Editors

Optimal control problems have found applications in numerous fields, such as aerospace, process control, and economics, and they continue to be a research area of great interest to many professionals. The goal of optimal control problems is to determine control and state trajectories for a dynamical system over a period of time such that an objective functional is optimized, for example, to send a rocket to the moon with minimal fuel consumption or to find the time-dependent optimal temperature inside a sterilizing chamber for canned food. However, practical optimal control problems are usually too complex to solve analytically. Thus, many numerical algorithms have been developed and implemented to find approximate solutions to such problems. This Special Issue aims to explore the most recent results in numerical methods for optimal control problems in both theoretical analysis and computational implementations.

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The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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