Stability of value functions for state constrained Bolza problems.

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Abstract

In this talk we consider a family of Bolza optimal control problems and investigate stability properties of their value functions. The stability is guaranteed by the classical assumptions imposed on Hamiltionians and an inward pointing condition on state constraints. As a biproduct of this investigation we also show uniqueness of solutions to a family of state-constrained Hamilton-Jacobi equations and new representation theorems for Hamiltonians that are convex in the last variable.

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