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State constrained optimal control problems with states of low regularity. (English)

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Summary: We consider first order optimality conditions for state constrained optimal control problems. In particular, we study the case where the state equation does not have enough regularity to admit the existence of a Slater point in function space. We overcome this difficulty by a special transformation. Under a density condition we show the existence of Lagrange multipliers, which have a representation via measures and additional regularity properties.

MSC:

[49K27](#) Optimality conditions for problems in abstract spaces

Cited in **4** Documents

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