

# Sufficient Optimality Conditions and Strong Subregularity OPE and PDE Optimal Control

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Strong metric subregularity (SMsR) of mappings is a fundamental property in the analysis of approximation methods for VIs, such as finite-dimensional approximations, gradient projection methods, Newton-type methods, etc. Such VIs arise, in particular, when considering the system of first-order optimality conditions for control-constrained optimal control problems. There is a strong relation (sometimes even coincidence) between the known sufficient optimality conditions and the conditions for SMsR. These will be the subject of the talk, concerning ODE or PDE optimal control problems. The focus will be on problems that are affine with respect to the control.

The talk is based on joint papers with A. Corella, N. Jork, N. Osmolovski, and M. Quincampoix.

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