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Optimal control of rate-independent systems with non-convex energy

Tuesday, August 13, 2024 11:30 AM (30 minutes)

This talk deals with an optimal control problem, where the state variable is given as a parametrized balanced viscosity solution of a rate-independent system with non convex energy.
Under certain assumptions on the data one can prove the existence of globally optimal solutions for external loads in $H^1(0,T)$.
Moreover, we investigate the approximability of optimal solutions by viscous regularized problems.
The underlying analysis is based on an approximation argument including an additional penalty term besides viscous regularization.

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