

# Numerical analysis of Dirichlet control problems

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The authors have been investigating Dirichlet control problems with  $L^2$ -regularization for several years. The talk will highlight some lessons learnt. These include

- superconvergence effects in graded meshes,
- the approximation of very weak solutions,
- regularity issues of the optimal control problem,
- approximation results for the optimal control problem.

The case of non-convex domains is always included.