

Optimality Conditions for Optimization Problems with Nonsmooth Constraints

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Abstract: We consider nonsmooth optimization problems where the nonsmoothness can be formulated in terms of the absolute value function. Then the optimization problem can be recast in so-called abs-normal form. For the class of unconstrained nonlinear nonsmooth minimization there have recently been developed necessary and sufficient first and second order optimality conditions. We extend the theory to nonsmooth constrained optimization and discuss illustrative examples where this type of nonsmoothness arises in practical optimization problems.

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