

LOWER AND UPPER SUBGRADIENT CONDITIONS IN NONSMOOTH MINIMIZATION

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This talk concerns first-order necessary optimality conditions for problems of *minimizing* nonsmooth functions under various constraints. Based on advanced tools of variational analysis and generalized differential calculus, we derive general results of two independent types called *lower subgradient* and *upper subgradient* optimality conditions. The former ones involve conventional (lower) subgradients of cost functions, while the latter conditions are expressed via upper subgradient constructions in fairly general settings.