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SOLUTION APPROACHES BASED ON WEAK SUBDIFFERENTIALS IN NONCONVEX ANALYSIS

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In this lecture we demonstrate the ways how some classes of nonconvex optimization problems can be analyzed by using the notion of weak subdifferentials. The basic idea for definiton of the weak subdifferentials is to use specially defined conical supporting surfaces for nonconvex sets. The new supporting philosophy is used to prove separation theorem for nonconvex sets and to develop new solution approaches in both single objective and multi-objective optimization.