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Optimization in Banach spaces. (English) Zbl 0669.49012

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Let X and Y be real Banach spaces and $K \subset Y$ a closed cone satisfying some additional conditions, which generates a partial ordering in Y . The authors consider the abstract optimization problem: (MP) Minimise $f(x)$ subject to $g(x) \geq 0$ and $h(x) = 0$, where $f: X \rightarrow Y$, $g: X \rightarrow Y^m$ and $h: X \rightarrow Y^p$. Using so called "strict separation axiom" they establish a Fritz John and Kuhn-Tucker-type necessary condition for the existence of a solution to the problem (MP).

Reviewer: [M.Todorov](#)

MSC:

[49K27](#) Optimality conditions for problems in abstract spaces

[90C48](#) Programming in abstract spaces

Cited in **3** Documents

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[real Banach spaces](#); [closed cone](#); [strict separation axiom](#); [necessary condition](#)

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