Bhakta, P. C.; **Roychaudhuri, Sumitra**
Optimization in Banach spaces. (English) Zbl 0669.49012
J. Math. Anal. Appl. 134, No. 2, 460-470 (1988).

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$\to Y$, $g : X \to Y^m$ and $h : X \to Y^p$. 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

Keywords:

real Banach spaces; closed cone; strict separation axiom; necessary condition

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