Hölder calmness of the solution mapping of parametric equilibrium problems

József Kolumbán

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Abstract

In this paper we analyse a general equilibrium problem defined by a trifunction that depends on a parameter. The use of a trifunction is motivated by the fact that equilibrium problems of this type cover a larger range of applications than the classical problems formulated with bifunctions. We are interested in the behaviour of the solutions when the parameter is perturbed. First we prove the Hölder calmness of the solution mapping for an abstract problem. Consequently, we give applications of the main result for two classes of problems: variational inequalities governed by set-valued strongly semimonotone mappings and mixed equilibrium problems.

This talk is based on a joint research with Daniela Inoan (Technical University, Cluj-Napoca).