

International J. of Math. Sci. & Engg. Appls. (IJMSEA)  
ISSN 0973-9424, Vol. 5 No. III (May, 2011), pp. 371-380

## MAXIMAL ELEMENTS AND PAIR OF GENERALIZED GAMES IN LOCALLY CONVEX TOPOLOGICAL VECTOR SPACES

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### Abstract

In this paper we prove some existence theorem for pair of maximal elements for  $\psi$  condensing correspondences which are either  $L_c$ -majorized or  $u$ -majorized and whose domain are non-compact sets in locally convex topological vector spaces. As an application, we obtain an existence theorem of equilibrium points for one-person pair game from which an existence theorem of equilibrium points for an N-person pair game is derived. Finally, an existence theorem of equilibrium points of generalized pair games with any (countable or uncountable) set of players is given.

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Key Words :  $\psi$ -Condensing mappings, Fixed point, Maximal element, N-person game, Generalized game, Equilibrium point, Abstract economy, Socio-economy, Lower-semicontinuous, Upper semicontinuous.

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