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SET VALUED F–VARIATIONAL INEQUALITIES AND SET VALUED VECTOR F–COMPLEMENTARITY PROBLEMS

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Abstract. In this work, we study a new type of set-valued vector F-variational inequalities and a new kind of set valued vector F-complementarity problem in Hausdorff topological vector spaces. We establish the equivalence between the set valued vector F-variational inequalities and set valued vector F-complementarity problems under certain conditions. By considering the existence of solutions for the vector F-variational inequalities and using the continuous selection theorem, we obtain some new existence theorems of solutions for the set valued vector F-variational inequalities and set valued vector F-complementarity problems, respectively.

Mathematics subject classification (2010): 47H40, 49J40, 90H30.
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