

## Existence of solutions for a system of quasi-variational relation problems and some applications

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### ABSTRACT.

In this paper, we study the existence of solutions for a new class of systems of quasi-variational relation problems on different domains. As applications, we obtain existence theorems of solutions for systems of quasi-variational inclusions, systems of quasi-equilibrium problems, systems of generalized maximal element problems, systems of generalized KKM problems and systems of generalized quasi-Nash equilibrium problems on different domains. The results of this paper improve and generalize several known results on variational relation problems.

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