# Strong Convergence of Self-adaptive Inertial Algorithms for Solving Split Variational Inclusion Problems with Applications

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**摘要:**

In this paper, four self-adaptive iterative algorithms with inertial effects are introduced to solve a split variational inclusion problem in real Hilbert spaces. One of the advantages of the suggested algorithms is that they can work without knowing the prior information of the operator norm. Strong convergence theorems of these algorithms are established under mild and standard assumptions. As applications, the split feasibility problem and the split minimization problem in real Hilbert spaces are studied.

Finally, several preliminary numerical experiments as well as an example in the field of compressed sensing are proposed to support the advantages and efficiency of the suggested methods over some existing ones.

## 关键词

**作者关键词:** Split variational inclusion problem; Signal processing problem; Strong convergence; Inertial method; Mann method; Viscosity method; 65J15; 68W10; 65K15; 47J20; 90C25

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