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Self-adaptive inertial extragradient algorithms for solving variational inequality problems

By: Tan, B (Tan, Bing) [1] ; Fan, JJ (Fan, Jingjing) [1] ; Li, SX (Li, Songxiao) [1]

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Abstract

In this paper, we study the strong convergence of two Mann-type inertial extragradient algorithms, which are devised with a new step size, for solving a variational inequality problem with a monotone and Lipschitz continuous operator in real Hilbert spaces. Strong convergence theorems for the suggested algorithms are proved without the prior knowledge of the Lipschitz constant of the operator. Finally, we provide some numerical experiments to illustrate the performance of the proposed algorithms and provide a comparison with related ones.

Keywords

Author Keywords: Variational inequality problem; Subgradient extragradient algorithm; Tseng's extragradient algorithm; Inertial method; Mann-type method

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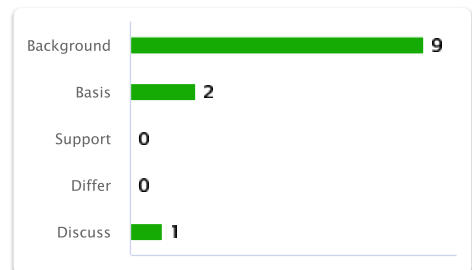🔔 Create citation alert

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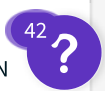
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