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On modified hybrid steepest-descent method for variational inequalities

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ABSTRACT. Assume a nonlinear operator F is strongly monotone and Lipschitzian on a nonempty closed convex subset C of a real Hilbert space H. We devise an iterative algorithm

$$x_{n+1} = \alpha x_n + (1-\alpha)Tx_n - \lambda_{n+1}\mu F(Tx_n), \quad n \geq 0,$$

which generates a sequence $\{x_n\}$ from an arbitrary initial point $x_0 \in H$. The sequence $\{x_n\}$ is shown to converge in norm to the unique solution x^* of a variational inequality under some mild conditions. Application to constrained pseudoinverse is included

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