A new hybrid method for solving variational inequalities.

Summary: We introduce a new method for solving variational inequalities with monotone and Lipschitz continuous operators acting in a Hilbert space. The iterative process based on the well-known projection method and the hybrid (or outer approximations) method. However, we do not use an extrapolation step in the projection method. The absence of one projection in our method is explained by a slightly different choice of sets in the hybrid method. We prove the strong convergence of the sequences generated by our method.

Keywords: variational inequality; projection method; Hilbert space; convergence