Inertial projection algorithms
for solving multivalued variational inequality problems in Hilbert spaces

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Abstract. This talk considers the multivalued variational inequality problems, $MVI(C,F)$, where C is a nonempty closed convex subset of a real Hilbert space H and $F:C\to 2^H$ is a multivalued mapping with nonempty values set. By combining the nonexpansiveness of metric projection and inertial techniques, we propose an algorithm under monotone and Lipschitz continuous assumption of the cost mapping F. The convergence of the iteration sequences generated by the algorithm is demonstrated under certain assumptions of the cost mapping and suitable chosen parameters. Finally, we give some numerical results for the proposed algorithm and comparison with some other well-known algorithms.

Keywords: Multivalued variational inequality problems, Inertial technique, Lipschitz continuous, metric projection.