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SOME NEW ALGORITHMS FOR QUASI VARIATIONAL INEQUALITIES

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Abstract. In this paper, we consider a new class of quasi variational inequalities involving three operators, which is called the extended general quasi variational inequality. It is shown that the extended general quasi variational inequalities are equivalent to the fixed problems and the extended general implicit Wiener-Hopf equations. These alternative formulations are used to suggest and analyze some iterative methods. The convergence analysis of these new methods under some suitable conditions is investigated. Several special cases are discussed. Since the extended general quasi variational inequalities include general variational inequalities, quasi variational inequalities and related optimization problems as special cases, results proved in this paper continue to hold for these problems. Results of this paper may stimulate further research in this fascinating area.

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