

# Two-term Hu-Storey method for large-scale nonlinear monotone systems

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We propose a two-term Hu-Storey method for solving large-scale monotone systems, which is based on derivative-free conjugate gradient approach and hyperplane projection technique. The conjugate gradient approach is efficient for large-scale systems due to low memory requirement, while projection strategy is suitable for monotone equations because it enables simply globalization. The derivative-free, function-value-based line search is combined with Hu-Storey search direction and projection procedure, in order to construct a globally convergent method. Numerical experiments indicate great robustness and efficiency of proposed method.