A Comparative Study of Two New Conjugate Gradient Methods

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Abstract. In this paper, we compared the performance profile of the classical conjugate gradient coefficients FR, PRP with two new β_k. These two new β_k possess global convergence properties using the exact line search. Preliminary numerical results show that, the two new β_k is very promising and efficient when compared to CG coefficients FR, PRP.

Keywords: Conjugate gradient coefficient, exact line search, global convergence, large scale, unconstrained optimization.
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