论文

CONVERGENCE PROPERTIES OF CONJUGATE GRADIENT METHODS WITH STRONG WOLFE LINESEARCH

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摘要　　 In this paper, we investigate the convergence property of the conjugate gradient algorithms which depend on the search directions

$d_1=-g_1$, $d_{k+1}=-g_{k+1}+\beta_k d_k$,$k\geq 1$, by using different choices for the scalar β_k, where g_k is the gradient of f at x_k. Under some assumptions which are slightly weaker than those in [1], we prove a global convergence result which allows β_k to be set in a wider range than that in [1].

关键词　　 Conjugate gradient algorithms, global co

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Abstract In this paper, we investigate the convergence property of the conjugate gradient algorithms which depend on the search directions $d_1=-g_1$, $d_{k+1}=-g_{k+1}+\beta_k d_k$,$k\geq 1$, by using different choices for the scalar β_k, where g_k is the gradient of f at x_k. Under some assumptions which are slightly weaker than those in [1], we prove a global convergence result which allows β_k to be set in a wider range than that in [1].

Key words   Conjugate gradient algorithms   global convergence unconstrained optimization

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