

A UNIFIED APPROACH TO CONJUGATE GRADIENT ALGORITHMS FOR SOLVING NONSYMMETRIC LINEAR SYSTEMS

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Abstract

By using a recursive method for computing a left inverse of a Krylov matrix we derive a general algorithm for the methods of the conjugate gradient type. This technique allows us to give all the parameters of the algorithms from the Krylov vectors. In particulier we give the condition of the existence of the algorithms based on these vectors.