COMPUTATION OF THE SINGULAR VALUE DECOMPOSITION USING MESH-CONNECTED PROCESSORS

R. P. BRENT, F. T. LUK, AND CHARLES VAN LOAN

Abstract

A cyclic Jacobi method for computing the singular value decomposition of an $m \times n$ matrix ($m \geq n$) using systolic arrays is proposed. The algorithm requires $O(n^2)$ processors and $O(m + n \log n)$ units of time.

Comments

Only the Abstract is given here. The full paper appeared as [2]. For related work and generalisations, see [1, 3, 4].

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