Abstract

This work suggests a parallel algorithm for Hermite interpolation on Extended Fibonacci Cube $E_{FC}$ $1^n$. The proposed algorithm has 3 phases: initialization, main and final. The main phase of the algorithm involves $2N+3$ multiplications, $N$ additions, $2N$ subtractions and $N$ divisions. In final phase we propose an efficient algorithm to accumulate the partial sums of Hermite interpolation in
$O(\log^2 N) \leq n-2$ steps as oppose to the earlier algorithm in the literature that involves $n-2$ steps, where $N$ is the number of nodes, $n$ the degree of $EFC_1(n)$.

References

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Index Terms

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Algorithms
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