Representing Parallel Programs with MPI by Exploiting a Graph-Based Approach [*]

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Abstract

This paper presents a novel method for the analysis and representation of parallel program with MPI. Parallel programs are mapped onto graph-theoretical problems and are represented by DP**T*-*grap*h, extension of *T*-*grap*hs, timing graphs, which are similar to flow graphs. These graphs reflect the structure and the timing behavior of the code. The special merit of this new notation is that it uses a concise notation to characterize the static structure of a program and its possible execution paths.