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面向流场计算的 PVM 并行程序设计研究

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RESEARCH ON PVM PARALLEL PROGRAMMING DESIGN FOR FLOW FIELD COMPUTATION

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摘要

针对流场计算的特点，提出了分布共享变量思想和异-同步并行算法，采用SPMD的编程模式在并行虚拟机（PVM）上初步实现了流场并行计算。

关键词： 流场 并行分布计算 并行虚拟机 分布共享变量 异－同步并行算法

Abstract:

Flow field computation is essential for flow dynamics research and aircraft manufacture, and parallel computing is the best way to perform the massive flow field computations. According to the characteristics of flow field computation, this paper proposes an idea of DSV distributed shared variable and the asynchronous synchronous parallel algorithm, has a try to realize parallel flow field computation on parallel virtual machine using SPMD (single program multiple data) model, and gives the experimental results.

Keywords: flow field parallel distributed computing parallel virtual machine distributed shared variable asynch ronoussynch ronous parallel algorithm

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