
Application of the Distributed Parallel Processing In the DNA Sequence Alignment*

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ABSTRACT

DNA sequence alignment is foundation of DNA sequence analysis. It is an important method of exploring the information of the DNA sequence. The Blast algorithm is an important algorithm in DNA sequence alignment. The key point of the method is to make DNA sequence to many sequence pairs for alignment and then join them together. This paper improves it and presents a local parallel algorithm in DNA sequence alignment based on the Blast algorithm. The paper analyses the advantage of the parallel algorithm to the other parallel algorithm by splitting the DNA sequence database. The theory analysis of the algorithm is described at the end of the paper.

Keywords: DNA sequence alignment Blast algorithm
Distributed Parallel algorithm

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