

GENE COMPUTATION USING ALGEBRAIC MULTIGRID

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Abstract

Studying the behavior and properties of genes may lead to demanding numerical problems. The goal of one of them is to find stable gene configurations provided that the rates of mutations of individual parts are known. This results in solving the eigenvector of a large sparse nonnegative nonsymmetric matrix corresponding to the eigenvalue 1. Some properties of the algebraic multigrid method applied to this problem are shown. Especially, we try to answer the question how to choose a reduced problem on the coarse level.