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A Numerical Approach for Large-Scale Computation CEM

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A new numerical method for large-scale computation-cellular element method is introduced. In this method the integer analysis of structure is changed into a series of part analysis. It may have a good future in the aspect of large structure because it hardly has any special request on the capability of computer. Simultaneity, It can be developed into a high parallel arithmetic to suit for the request of parallel compute. Its computing steps are presented. The similarities and differences among the moment distributed method, finite element method and cellular element method are discussed. Though the discrete technique of finite element method is used in it, cellular element method is different from finite element method. Several numerical computing examples are given. Based on the numerical results, the feasibility, advantages and disadvantages of cellular element method are discussed.

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