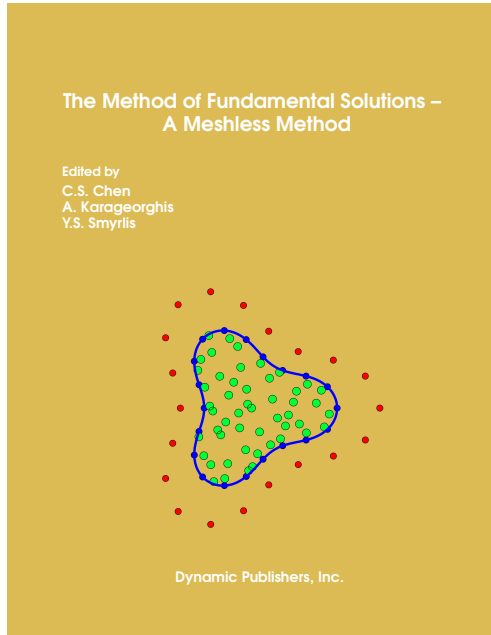


# THE METHOD OF FUNDAMENTAL SOLUTIONS – A MESHLESS METHOD

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The method of fundamental solutions (MFS) is a highly effective boundary meshless method for solving various types of partial differential equations. The method is also known as the superposition method, the desingularized method, and the charge simulation method, etc.

The major attraction of the MFS over other traditional methods is the simplicity with which it can be numerically implemented, especially for higher dimensional problems and problems involving irregular domains. Although the MFS has been around for several decades, there are still many theoretical and computational issues to be resolved.

The first eight chapters of the book were contributed by mathematicians and focus on the theoretical aspects of the method and the development of new numerical algorithms. The second part of the book (Chapters 9–16) was contributed by engineers and it focuses on engineering applications including fluid dynamics, solid mechanics, and wave propagation, etc.

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