



# COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING

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### DESCRIPTION

The development of **computer methods** for the solution of scientific and engineering problems governed by the laws of **mechanics** was one of the great scientific and **engineering** achievements of the second half of the 20th century, with a profound impact on science and technology. This is accomplished through advanced **mathematical modeling** and numerical solutions reflecting a combination of concepts, methods and principles that are often interdisciplinary in nature and span several areas of mechanics, mathematics, computer science and other scientific disciplines as well.

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- **Heat transfer**
- **Dynamics**
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- **Acoustics**
- **Biomechanics**
- **Nanomechanics**
- **Molecular dynamics**
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