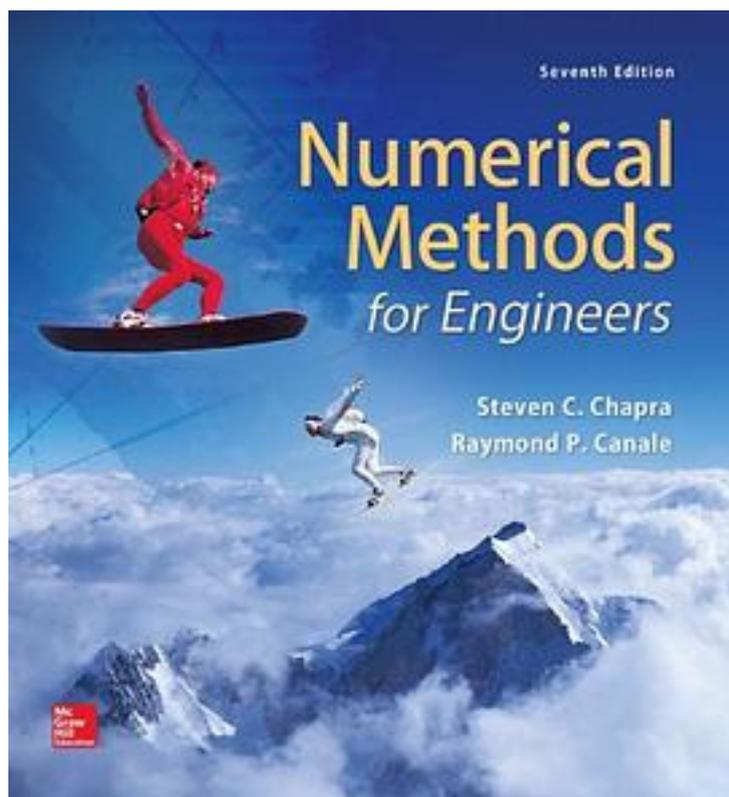


# Numerical Methods for Engineers



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The seventh edition of Chapra and Canale's Numerical Methods for Engineers retains the instructional techniques that have made the text so successful. Chapra and Canale's unique approach opens each part of the text with sections called "Motivation," "Mathematical Background," and "Orientation". Each part closes with an "Epilogue" containing "Trade-Offs," "Important Relationships and Formulas," and "Advanced Methods and Additional References." Much more than a summary, the Epilogue deepens understanding of what has been learned and provides a peek into

more advanced methods. Helpful separate Appendices. "Getting Started with MATLAB" and "Getting Started with Mathcad" which make excellent references. Numerous new or revised problems are drawn from actual engineering practice. The expanded breadth of engineering disciplines covered is especially evident in these exercises, which now cover such areas as biotechnology and biomedical engineering. Excellent new examples and case studies span all areas of engineering giving students a broad exposure to various fields in engineering. Users will find use of files for many popular software packages, specifically MATLAB[registered], Excel[registered] with VBA, and Mathcad[registered]. There is also material on developing MATLAB[registered] m-files and VBA macros.

作者介绍:

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## 标签

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## 评论

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数值计算方法非常好的一本书,方法比大学数值计算更深些,在方程求解,梯度下降优化,线性与非线性拟合,插值,线性方程组求解,积分和微分,常微分方程和偏微分方程数值解方面全面介绍了利用计算机求解的数值方法,比常规分析解更普遍更实际的解决更多问题,另外介绍了如何用Excel, Matlab, MathCad软件包解决这些问题。总之,非常适合流体,机械,化工,信号分析,图像处理,电路设计等工程数学方面。

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