



## Mathematical Methods for Partial Differential Equations

By J.H. Heinbockel

Trafford Publishing, Canada, 2010. Paperback. Book Condition: New. 249 x 198 mm. Language: English Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.Mathematical Methods for Partial Differential Equations is an introduction in the use of various mathematical methods needed for solving linear partial differential equations. The material is suitable for a two semester course in partial differential equations for mathematicians, engineers, physicists, chemistry and science majors and is suitable for upper level college undergraduates or beginning graduate students. Chapter one reviews necessary background material from the subject area of ordinary differential equations and then develops solution techniques for some easy to solve partial differential equations. Chapter two introduces orthogonal functions and Sturm-Liouville systems. Chapter three utilizes orthogonal functions to develop Fourier series and Fourier integrals. The fourth, fifth and sixth chapters consider various applied engineering applications of partial differential equations. Selected applied topics are developed together with necessary solution methods associated with parabolic, hyperbolic and elliptic type partial differential equations. Chapter seven introduces transform methods for solving linear partial differential equations. Numerous examples associated with the Laplace, Fourier exponential, Fourier sine, Fourier cosine and selected finite Sturm-Liouville transforms are given. Chapter eight introduces Green's functions for ordinary differential equations and...



[READ ONLINE](#)  
[ 6.15 MB ]

### Reviews

*This ebook is indeed gripping and fascinating. it had been writtern really properly and helpful. I am very easily could possibly get a satisfaction of reading a published publication.*

-- **Maude Ritchie**

*A top quality ebook and also the font employed was interesting to read. This is for those who statte there was not a worth studying. Your life span will probably be enhance when you total looking at this ebook.*

-- **Billy Christiansen**