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| 1. Record Nr.           | UNINA9910451386703321  |
| Titolo                  | Frontiers and prospects of contemporary applied mathematics<br>[[electronic resource] /] / editors, Tatsien Li, Pingwen Zhang  |
| Pubbl/distr/stampa      | Beijing, China, : Higher Education Press<br>Singapore ; ; New Jersey, : World Scientific, c2005  |
| ISBN                    | 1-281-91933-0<br>9786611919337<br>981-277-419-X  |
| Descrizione fisica      | 1 online resource (276 p.)   |
| Collana                 | Series in contemporary applied mathematics ; ; 6   |
| Altri autori (Persone)  | LiDaqian<br>ZhangPingwen   |
| Disciplina              | 510.285<br>620.001/51<br>620.00151   |
| Soggetti                | Engineering mathematics<br>Biomathematics<br>Mathematics<br>Electronic books.  |
| Lingua di pubblicazione | Inglese  |
| Formato                 | Materiale a stampa   |
| Livello bibliografico   | Monografia   |
| Note generali           | "During the period of the 8th Annual Conference of the China Society for Industrial and Applied Mathematics (CSIAM) held on August 24-30, 2004 in Xiangtan, Hunan Province, China, the Symposium on Frontiers and Prospects of Contemporary Applied Mathematics was held"--Pref.   |
| Nota di bibliografia    | Includes bibliographical references.   |
| Nota di contenuto       | Contents ; Preface ; Invited Talks ; An Iterative BEM for the Inverse Problem of Detecting Corrosion in a Pipe ; 1 Introduction ; 2 Formulation of the inverse problem ; 3 The iterative boundary element method for this Cauchy problem ; 4 Numerical results for the inverse problem ; 5 Conclusions References ; Analysis of the Local Quasicontinuum Method ; 1 Introduction ; 2 The existence theorem for the continuum and the atomistic models ; 3 Local quasicontinuum method ; 4 Estimate of e(QC) ; References |

The Artificial Boundary Method-Numerical Solutions of Partial  
Differential Equations on Unbounded Domains  
1 Introduction ; 2 Two typical problems  
; 3 The global (nonlocal) artificial boundary conditions  
; 4 Local boundary conditions ; 5 Discrete artificial  
boundary conditions  
6 Implicit boundary conditions 7 Conclusions  
; References ; Optimal order integration on the sphere  
; 1 Introduction ; 2 Extremal fundamental systems versus  
product rules ; 3 Optimal order  
estimates for cubature in Sobolev spaces  
; 4 Numerical example ; References  
A Survey of Multi-symplectic Runge-Kutta Type Methods for  
Hamiltonian Partial Differential Equations  
1 Introduction ; 2 Multi-symplecticity of Runge-Kutta type  
methods for the general Hamiltonian partial differential equations  
3 Multi-symplectic Runge-Kutta type methods for Schrodinger  
equations

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Sommario/riassunto

This collection of articles covers the hottest topics in contemporary applied mathematics. Multiscale modeling, material computing, symplectic methods, parallel computing, mathematical biology, applied differential equations and engineering computing problems are all included. The book contains the latest results of many leading scientists and provides a window on new trends in research in the field.

*Sample Chapter(s)*  
Chapter 1: An Iterative BEM for the Inverse Problem of Detecting Corrosion in a Pipe (467 KB)  
*Contents:*

- An Iterative BEM for the Inverse Problem

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| 2. Record Nr.           | UNINA9910698543503321  |
| Autore                  | Walker Andy  |
| Titolo                  | Renewable energy planning [[electronic resource] ] : multiparametric cost optimization : preprint / / Andy Walker  |
| Pubbl/distr/stampa      | Golden, CO : , : National Renewable Energy Laboratory, , [2008]  |
| Descrizione fisica      | 1 online resource (7 pages) : illustrations (chiefly color,)   |
| Collana                 | Conference paper ; ; NREL/CP-670-42921   |
| Soggetti                | Buildings - Energy conservation<br>Renewable energy sources - Costs<br>Life cycle costing  |
| Lingua di pubblicazione | Inglese  |
| Formato                 | Materiale a stampa   |
| Livello bibliografico   | Monografia   |
| Note generali           | Title from title screen (viewed June 6, 2008).<br>"Presented at SOLAR 2008 - American Solar Energy Society (ASES), San Diego, California, May 3-8, 2008."<br>"May 2008." |
| Nota di bibliografia    | Includes bibliographical references (page 7).  |