

|                         |  |
|-------------------------|--|
| 1. Record Nr.           | UNINA9910807429403321  |
| Titolo                  | Integral equations, boundary value problems and related problems : dedicated to Professor Chien-Ke Lu on the occasion of his 90th birthday, Yinchuan, Ningxia, China, 19-23 August 2012 // editor, Xing Li, Ningxia University, China  |
| Pubbl/distr/stampa      | Hackensack, N.J., : World Scientific, 2013<br>New Jersey : , : World Scientific, , [2013]<br>2013  |
| ISBN                    | 981-4452-88-2  |
| Descrizione fisica      | 1 online resource (xi, 285 pages) : illustrations  |
| Collana                 | Gale eBooks  |
| Disciplina              | 515/.4   |
| Soggetti                | Boundary value problems<br>Integral equations  |
| Lingua di pubblicazione | Inglese  |
| Formato                 | Materiale a stampa   |
| Livello bibliografico   | Monografia   |
| Note generali           | "Dedicated to Professor Chien-Ke Lu on the occasion of his 90th birthday."   |
| Nota di bibliografia    | Includes bibliographical references.   |
| Nota di contenuto       | Preface; Organizing Committees; CONTENTS; Some Properties of a Kind of Singular Integral Operator for K-Monogenic Function in Clifford Analysis L.P. Wang, Z.L. Xu and Y. Y. Qiao; 1. Introduction; 2. Preliminaries; 3. The main results; References; Some Results Related with Mobius Transformation in Clifford Analysis Z.X. Zhang; 1. Introduction and Preliminaries; 2. Hyper-complex Forms of Equations for Plane and Sphere in R <sup>3</sup> ; 3. Hyper-complex Forms of Equations for Symmetric Points with respect to Plane and Sphere in R <sup>3</sup> ; 4. Mobius Transformation<br>5. Integral Formulas for Change of Variables under Mobius Transformation Acknowledgements; References; The Scattering of SH Wave on the Array of Periodic Cracks in a Piezoelectric Substrate Bonded a Half-Plane of Functionally Graded Materials J.Q. Liu, X. Li, S.Z. Dong, X. Y. Yao and C.F. Wang; 1 Introduction; 2 Description of the problem; 3. Conversion of the problem; 4. Solution of the problem; 5 Numerical results and discussion; 6 Conclusions; Acknowledgements; References; Anti-Plane Problem of Two Collinear Cracks in a Functionally Graded Coating-Substrate Structure S.H. Ding and X. Li |

1. Introduction 2. Description of the problem; 3. Derivation of the singular integral equations; 4. Results and discussion; Acknowledgements; References; A Kind of Riemann Boundary Value Problem for Triharmonic Functions in Clifford Analysis L.F. Gu; 1. Introduction and preliminaries; 2. Some properties for triharmonic functions; 3. Riemann boundary value problem for triharmonic functions; 4. Existence of solutions for Riemann boundary value problem for triharmonic functions; References; A New Dynamical Systems Method for Nonlinear Operator Equations X.J. Luo, F.C. Li and S.H. Yang

I. Introduction II. DSM for nonlinear equations; III. Stability of the solution; References; A Class of Integral Inequality and Application W.S. Wang; 1. Introduction; 2. Main result; 3. Application; References; An Efficient Spectral Boundary Integral Equation Method for the Simulation of Earthquake Rupture Problems W.S. Wang and B. W. Zhang; 1. Introduction; 2. Formulation and numerical implementation; 3. Friction laws and spatial discretization; 4. Symplectic schemes of evolution time step; 5. Numerical experiments; 6. Conclusions; Acknowledgements; References

High-Frequency Asymptotics for the Modified Helmholtz Equation in a Half-Plane H.M. Huang 1. Introduction; 2. The integral representation for the solution; 3. Asymptotic approximations; Acknowledgement; References; An Inverse Boundary Value Problem Involving Filtration for Elliptic Systems of Equations Z.L. Xu and L. Yan; 1. Introduction; 2. Problem transformation; 3. The existence and uniqueness of solution for problem B; References; Fixed Point Theorems of Contractive Mapping in Extended Cone Metric Spaces H.P. Huang and X. Li; 1. Introduction; 2. Main results; 3. Applications; References

Positive Solutions of Singular Third-Order Three-Point Boundary Value Problems B. Q. Yan and X. Liu

---

Sommario/riassunto

In this volume, we report new results about various theories and methods of integral equation, boundary value problems for partial differential equations and functional equations, and integral operators including singular integral equations, applications of boundary value problems and integral equations to mechanics and physics, numerical methods of integral equations and boundary value problems, theories and methods for inverse problems of mathematical physics, Clifford analysis and related problems.

---