1. Record Nr. UNISALENTO991001257219707536

Autore	Cressie, Noel A. C
Titolo	Statistics for spatio-temporal data / Noel Cressie, Christopher K. Wikle
Pubbl/distr/stampa	Hoboken : Wiley, c2011
ISBN	9780471692744
Descrizione fisica	xxii, 588 p. : ill. ; 25 cm
Collana	Wiley series in probability and statistics
Altri autori (Persone)	Wikle, Christopher K
Disciplina	519.5
Soggetti	Analisi spaziale
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Bibliografia: p. 523-569

2. Record Nr. UNINA9910830662103321

Autore	Murio Diego A. <1944->
Titolo	The mollification method and the numerical solution of ill-posed problems [[electronic resource] /] / Diego A. Murio
Pubbl/distr/stampa	New York, : Wiley, c1993
ISBN	1-283-10099-1 9786613100993 1-118-03146-6 1-118-03321-3
Descrizione fisica	1 online resource (272 p.)
Disciplina	515.353 515/.353
Soggetti	Numerical analysis - Improperly posed problems Inverse problems (Differential equations) - Numerical solutions
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"A Wiley interscience publication."
Nota di bibliografia	Includes bibliographical references (p. 232-248) and index.
Nota di contenuto	The Mollification Method and the Numerical Solution of Ill-Posed Problems; Contents; Preface; Acknowledgments; 1. Numerical Differentiation; 1.1. Description of the Problem; 1.2. Stabilized Problem; 1.3. Differentiation as an Inverse Problem; 1.4. Parameter Selection; 1.5. Numerical Procedure; 1.6. Numerical Results; 1.7. Exercises; 1.8. References and Comments; 2. Abel's Integral Equation; 2.1. Description of the Problem; 2.2. Stabilized Problems; 2.3. Numerical Implementations; 2.4. Numerical Results and Comparisons; 2.5. Exercises; 2.6. References and Comments 3. Inverse Heat Conduction Problem3.1. One-Dimensional IHCP in a Semi-infinite Body; 3.2. Stabilized Problems; 3.3. One-Dimensional IHCP with Finite Slab Symmetry; 3.4. Finite-Difference Approximations; 3.5. Integral Equation Approximations; 3.6. Numerical Results; 3.7. Exercises; 3.8. References and Comments; 4. Two-Dimensional Inverse Heat Conduction Problem; 4.1. Two-Dimensional IHCP in a Semi-infinite Slab; 4.2. Stabilized Problem; 4.3. Numerical Procedure and Error Analysis; 4.4. Numerical Results; 4.5. Exercises; 4.6. References and Comments

5. Applications of the Space Marching Solution of the IHCP5.1. Identification of Boundary Source Functions; 5.2. Numerical Procedure; 5.3. IHCP with Phase Changes; 5.4. Description of the Problems; 5.5. Numerical Procedure; 5.6. Identification of the Initial Temperature Distribution; 5.7. Semi-infinite Body; 5.8. Finite Slab Symmetry; 5.9. Stabilized Problems; 5.10. Numerical Results; 5.11. Exercises; 5.12. References and Comments; 6. Applications of Stable Numerical Differentiation Procedures; 6.1. Numerical Identification of Forcing Terms; 6.2. Stabilized Problem; 6.3. Numerical Results
6.4. Identification of the Transmissivity Coefficient in the One-Dimensional Elliptic Equation6.5. Stability Analysis; 6.6. Numerical Method; 6.7. Numerical Results; 6.8. Identification of the Transmissivity Coefficient in the One-Dimensional Parabolic Equation; 6.9. Stability Analysis; 6.10. Numerical Method; 6.11. Numerical Results; 6.12. Exercises; 6.13. References and Comments; Appendix A. Mathematical Background; A.1. Lp Spaces; A.2. The Hilbert Space L2(); A.3. Approximation of Functions in L2(); A.4. Mollifiers; A.5. Fourier Transform; A.6. Discrete Functions
A.7. References and CommentsAppendix B. References to the Literature on the IHCP; Index

Sommario/riassunto

Uses a strong computational and truly interdisciplinary treatment to introduce applied inverse theory. The author created the Mollification Method as a means of dealing with ill-posed problems. Although the presentation focuses on problems with origins in mechanical engineering, many of the ideas and techniques can be easily applied to a broad range of situations.