

Forthcoming March 2023

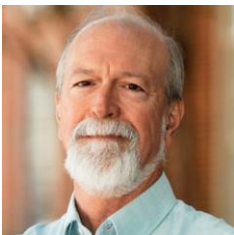
The Long-Awaited Second Edition:

Inverse Heat Conduction: Ill-Posed Problems

To be published by John Wiley & Sons

- ✓ ***Featuring 10 Chapters that cover concepts, applications and solution techniques for inverse heat conduction problems (IHCPs) with numerous examples.***
- ✓ ***Detailed discussions on various IHCP solution methods including Stoltz method, Function Specification, Tikhonov Regularization, Singular Value Decomposition and Conjugate Gradient.***
- ✓ ***All-new chapters on Optimal Regularization, IHCP Estimation Procedure, Filter Form Solution of IHCP, Evaluation of IHCP Solution Procedures, Multiple Heat Flux Estimation, Temperature Measurement and a Comprehensive Review of IHCP Applications in various fields.***
- ✓ ***Companion website featuring computer codes, slides, suggested syllabus and solution manual for instructors.***

Authored By:



Keith A. Woodbury
Professor Emeritus
University of Alabama



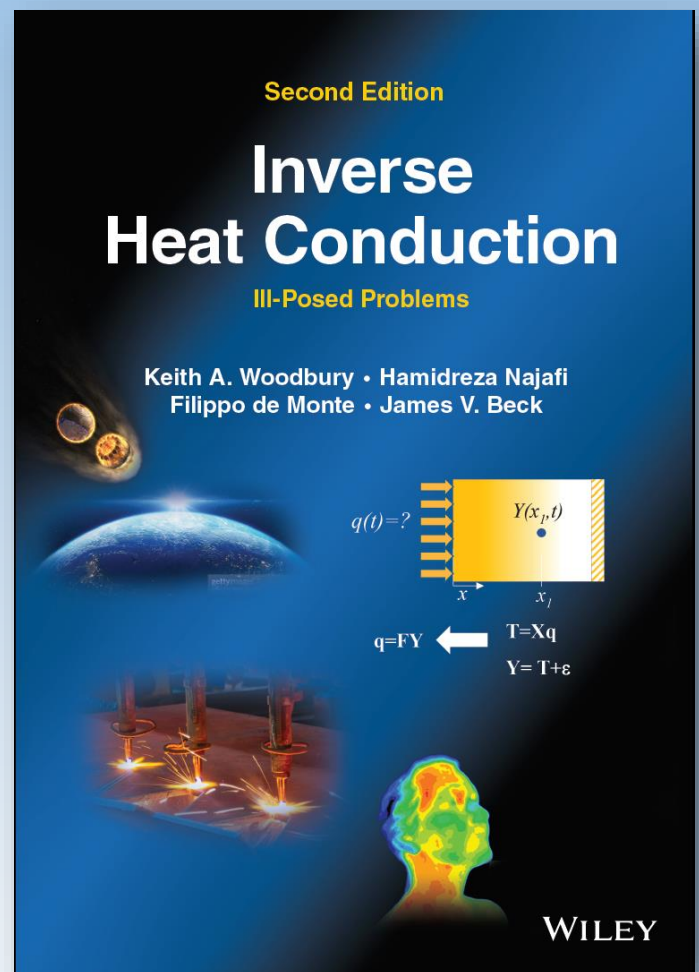
Hamidreza Najafi
Associate Professor
Florida Institute of Technology



Filippo de Monte
Professor
University of L'Aquila



James V. Beck
Professor Emeritus
Michigan State University



About the Book:

The 1st Edition of the classic book *Inverse Heat Conduction: Ill-posed Problems*, published in 1985, has been used as one of the primary references for researchers and professionals working on IHCPs due to its comprehensive scope and dedication to the topic. The 2nd Edition of the book is a largely revised version of the first edition with several all-new chapters and significant enhancement of the previous materials. The book is the result of many years of work of the authors in the areas of IHCP and can serve as an effective textbook for graduate students and instructors and as a reliable reference book for professionals.

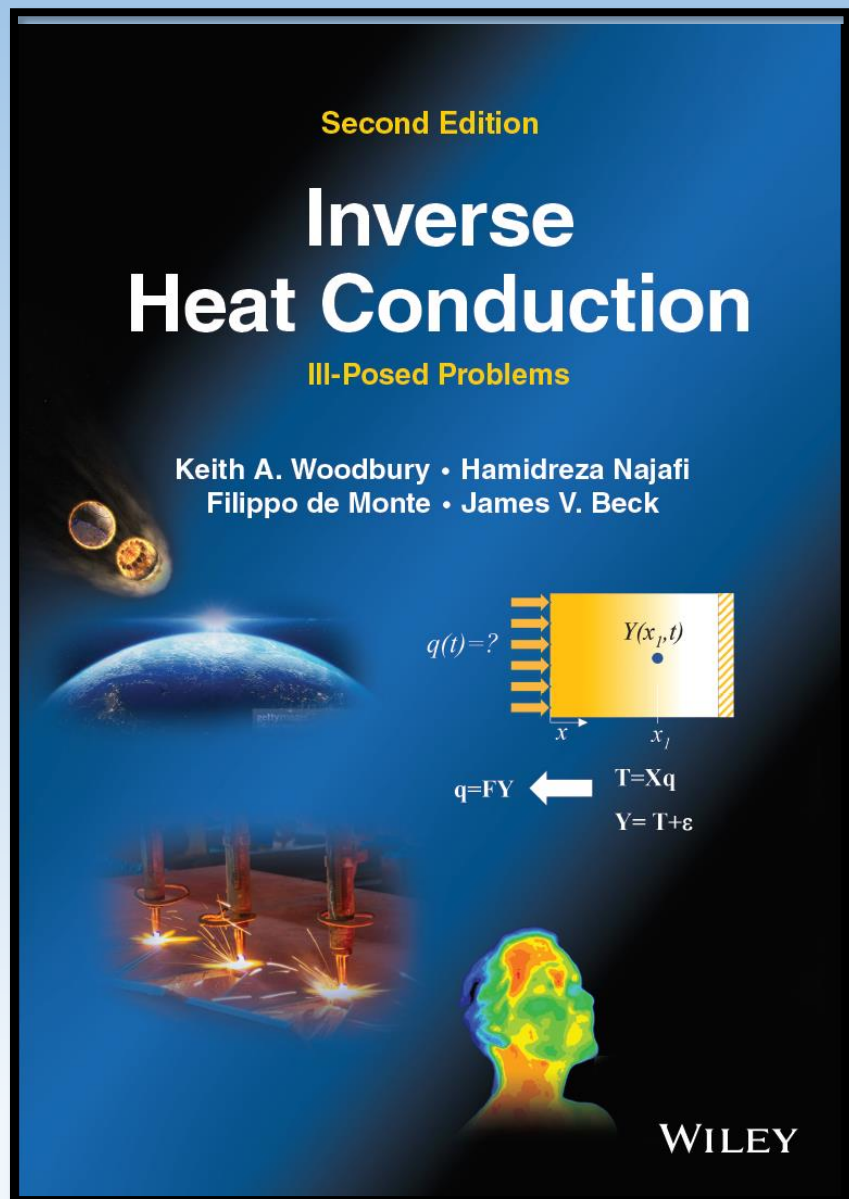


Table of Contents:

- ✓ **Chapter 1: Inverse Heat Conduction Problems: An Overview**
- ✓ **Chapter 2: Analytical Solutions of Direct Heat Conduction Problems**
- ✓ **Chapter 3: Approximate Methods for Direct Heat Conduction Problems**
- ✓ **Chapter 4: Inverse Heat Conduction Estimation Procedures**
- ✓ **Chapter 5: Filter Form Solution for IHCP**
- ✓ **Chapter 6: Optimal Regularization**
- ✓ **Chapter 7: Evaluation of IHCP Solution Procedures**
- ✓ **Chapter 8: Multiple Heat Flux Estimation**
- ✓ **Chapter 9: Heat Transfer Coefficient Estimation**
- ✓ **Chapter 10: Temperature Measurement**

Forthcoming March 2023