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NUMERICAL METHODS IN SOFTWARE AND ANALYSIS - JOHN R. RICE 2014-05-19

NUMERICAL METHODS, SOFTWARE, AND ANALYSIS, SECOND EDITION INTRODUCES SCIENCE AND ENGINEERING STUDENTS TO THE METHODS, TOOLS, AND IDEAS OF NUMERICAL COMPUTATION. INTRODUCTORY COURSES IN NUMERICAL METHODS FACE A FUNDAMENTAL PROBLEM—THERE IS TOO LITTLE TIME TO LEARN TOO MUCH. THIS TEXT SOLVES THAT

PROBLEM BY USING HIGH-QUALITY MATHEMATICAL SOFTWARE. IN FACT, THE OBJECTIVE OF THE TEXT IS TO PRESENT SCIENTIFIC PROBLEM SOLVING USING STANDARD MATHEMATICAL SOFTWARE. THIS BOOK DISCUSSES NUMEROUS PROGRAMS AND SOFTWARE PACKAGES FOCUSING ON THE IMSL LIBRARY (INCLUDING THE PROTRAN SYSTEM) AND ACM ALGORITHMS. THE BOOK IS ORGANIZED INTO THREE PARTS. PART I PRESENTS THE BACKGROUND MATERIAL. PART II

PRESENTS THE PRINCIPAL METHODS AND IDEAS OF NUMERICAL COMPUTATION. PART III CONTAINS MATERIAL ABOUT SOFTWARE ENGINEERING AND PERFORMANCE EVALUATION. A UNIFORM APPROACH IS USED IN EACH AREA OF NUMERICAL COMPUTATION. FIRST, AN INTUITIVE DEVELOPMENT IS MADE OF THE PROBLEMS AND THE BASIC METHODS FOR THEIR SOLUTION. THEN, RELEVANT MATHEMATICAL SOFTWARE IS REVIEWED AND ITS USE OUTLINED. MANY AREAS PROVIDE EXTENSIVE EXAMPLES AND CASE STUDIES. FINALLY, A DEEPER ANALYSIS OF THE METHODS IS PRESENTED AS IN TRADITIONAL NUMERICAL ANALYSIS TEXTS. EMPHASIZES THE USE OF HIGH-QUALITY MATHEMATICAL SOFTWARE FOR NUMERICAL COMPUTATION EXTENSIVE USE OF IMSL ROUTINES FEATURES EXTENSIVE EXAMPLES AND CASE STUDIES

NUMERICAL METHODS WITH FORTRAN 77 - LAURENCE ATKINSON 1989

MODERN FORTRAN EXPLAINED - MICHAEL METCALF
2011-03-24

A CLEAR AND THOROUGH DESCRIPTION OF THE LATEST VERSIONS OF FORTRAN BY LEADING EXPERTS IN THE FIELD. IT IS INTENDED FOR NEW AND EXISTING USERS OF THE LANGUAGE, AND FOR ALL THOSE INVOLVED IN SCIENTIFIC AND NUMERICAL COMPUTING. IT IS SUITABLE AS A TEXTBOOK FOR TEACHING AND AS A HANDY REFERENCE FOR PRACTITIONERS.

LAPACK95 Users' Guide - V. A. BARKER 2001-01-01

LAPACK95 Users' Guide PROVIDES AN INTRODUCTION TO THE DESIGN OF THE LAPACK95 PACKAGE.

NUMERICAL MATHEMATICS AND COMPUTING - E. WARD CHENEY 2012-05-15

AUTHORS WARD CHENEY AND DAVID KINCAID SHOW STUDENTS OF SCIENCE AND ENGINEERING THE POTENTIAL COMPUTERS HAVE FOR SOLVING NUMERICAL PROBLEMS AND GIVE THEM AMPLE OPPORTUNITIES TO HONE THEIR SKILLS IN PROGRAMMING AND PROBLEM SOLVING. NUMERICAL MATHEMATICS AND COMPUTING, 7TH EDITION ALSO HELPS STUDENTS LEARN ABOUT ERRORS THAT INEVITABLY ACCOMPANY SCIENTIFIC COMPUTATIONS AND ARMS THEM WITH METHODS FOR DETECTING, PREDICTING, AND CONTROLLING THESE ERRORS. IMPORTANT NOTICE: MEDIA CONTENT REFERENCED WITHIN THE PRODUCT DESCRIPTION OR THE PRODUCT TEXT MAY NOT BE AVAILABLE IN THE EBOOK VERSION.

NUMERICAL RECIPES IN FORTRAN 77: VOLUME 1, VOLUME 1 OF FORTRAN NUMERICAL RECIPES - WILLIAM H. PRESS
1992-09-25

THIS IS THE GREATLY REVISED AND GREATLY EXPANDED SECOND EDITION OF THE HUGELY POPULAR NUMERICAL RECIPES: THE ART OF SCIENTIFIC COMPUTING. THE PRODUCT OF A UNIQUE COLLABORATION AMONG FOUR LEADING SCIENTISTS IN ACADEMIC RESEARCH AND INDUSTRY NUMERICAL RECIPES IS A COMPLETE TEXT AND REFERENCE BOOK ON

SCIENTIFIC COMPUTING. IN A SELF-CONTAINED MANNER IT PROCEEDS FROM MATHEMATICAL AND THEORETICAL CONSIDERATIONS TO ACTUAL PRACTICAL COMPUTER ROUTINES. WITH OVER 100 NEW ROUTINES BRINGING THE TOTAL TO WELL OVER 300, PLUS UPGRADED VERSIONS OF THE ORIGINAL ROUTINES, THIS NEW EDITION REMAINS THE MOST PRACTICAL, COMPREHENSIVE HANDBOOK OF SCIENTIFIC COMPUTING AVAILABLE TODAY. HIGHLIGHTS OF THE NEW MATERIAL INCLUDE: -A NEW CHAPTER ON INTEGRAL EQUATIONS AND INVERSE METHODS -MULTIGRID AND OTHER METHODS FOR SOLVING PARTIAL DIFFERENTIAL EQUATIONS - IMPROVED RANDOM NUMBER ROUTINES - WAVELET TRANSFORMS -THE STATISTICAL BOOTSTRAP METHOD -A NEW CHAPTER ON "LESS-NUMERICAL" ALGORITHMS INCLUDING COMPRESSION CODING AND ARBITRARY PRECISION ARITHMETIC. THE BOOK RETAINS THE INFORMAL EASY-TO-READ STYLE THAT MADE THE FIRST EDITION SO POPULAR, WHILE INTRODUCING SOME MORE ADVANCED TOPICS. IT IS AN IDEAL TEXTBOOK FOR SCIENTISTS AND ENGINEERS AND AN INDISPENSABLE REFERENCE FOR ANYONE WHO WORKS IN SCIENTIFIC COMPUTING. THE SECOND EDITION IS AVAILABE IN FORTRAN, THE TRADITIONAL LANGUAGE FOR NUMERICAL CALCULATIONS AND IN THE INCREASINGLY POPULAR C LANGUAGE.

NUMERICAL RECIPES IN FORTRAN EXAMPLE BOOK - WILLIAM H. PRESS 1992-11-27

SOFTWARE -- PROGRAMMING LANGUAGES.

NUMERICAL METHODS FOR ENGINEERS AND SCIENTISTS - JOE D. HOFFMAN 2018-10-03

EMPHASIZING THE FINITE DIFFERENCE APPROACH FOR SOLVING DIFFERENTIAL EQUATIONS, THE SECOND EDITION OF NUMERICAL METHODS FOR ENGINEERS AND SCIENTISTS PRESENTS A METHODOLOGY FOR SYSTEMATICALLY CONSTRUCTING INDIVIDUAL COMPUTER PROGRAMS. PROVIDING EASY ACCESS TO ACCURATE SOLUTIONS TO COMPLEX SCIENTIFIC AND ENGINEERING PROBLEMS, EACH CHAPTER BEGINS WITH OBJECTIVES, A DISCUSSION OF A REPRESENTATIVE APPLICATION, AND AN OUTLINE OF SPECIAL FEATURES, SUMMING UP WITH A LIST OF TASKS STUDENTS SHOULD BE ABLE TO COMPLETE AFTER READING THE CHAPTER- PERFECT FOR USE AS A STUDY GUIDE OR FOR REVIEW. THE AIAA JOURNAL CALLS THE BOOK "...A GOOD, SOLID INSTRUCTIONAL TEXT ON THE BASIC TOOLS OF NUMERICAL ANALYSIS."

C LANGUAGE AND NUMERICAL METHODS - C. XAVIER 2007
C LANGUAGE IS THE POPULAR TOOL USED TO WRITE PROGRAMS FOR NUMERICAL METHODS. BECAUSE OF THE IMPORTANCE OF NUMERICAL METHODS IN SCIENTIFIC INDUSTRIAL AND SOCIAL RESEARCH.C LANGUAGE AND NUMERICAL METHODS IS TAUGHT ALMOST IN ALL GRADUATE AND POSTGRADUATE PROGRAMS OF ENGINEERING AS WELL AS SCIENCE. IN THIS BOOK, THE STRUCTURES OF C LANGUAGE WHICH ARE ESSENTIAL TO DEVELOP NUMERICAL

METHODS PROGRAMS ARE FIRST INTRODUCED IN CHAPTERS 1 TO 7. THESE CONCEPTS ARE EXPLAINED WITH APPROPRIATE EXAMPLES IN A SIMPLE STYLE. THE REST OF THE BOOK IS DEVOTED FOR NUMERICAL METHODS. IN EACH OF THE TOPIC ON NUMERICAL METHODS, THE SUBJECT IS PRESENTED IN FOUR STEPS, NAMELY, THEORY, NUMERICAL EXAMPLES AND SOLVED PROBLEMS, ALGORITHMS AND COMPLETE C PROGRAM WITH COMPUTER OUTPUT SHEETS. IN EACH OF THESE CHAPTERS, A NUMBER OF SOLVED PROBLEMS AND REVIEW QUESTIONS ARE GIVEN AS A DRILL WORK ON THE SUBJECT. IN APPENDIX THE ANSWERS TO SOME OF THE REVIEW QUESTIONS ARE GIVEN.

NUMERICAL ANALYSIS - RICHARD L. BURDEN 2015-01-01

THIS WELL-RESPECTED TEXT INTRODUCES THE THEORY AND APPLICATION OF MODERN NUMERICAL APPROXIMATION TECHNIQUES TO STUDENTS TAKING A ONE- OR TWO-SEMESTER COURSE IN NUMERICAL ANALYSIS. PROVIDING AN ACCESSIBLE TREATMENT THAT ONLY REQUIRES A CALCULUS PREREQUISITE, THE AUTHORS EXPLAIN HOW, WHY, AND WHEN APPROXIMATION TECHNIQUES CAN BE EXPECTED TO WORK- AND WHY, IN SOME SITUATIONS, THEY FAIL. A WEALTH OF EXAMPLES AND EXERCISES DEVELOP STUDENTS' INTUITION, AND DEMONSTRATE THE SUBJECT'S PRACTICAL APPLICATIONS TO IMPORTANT EVERYDAY PROBLEMS IN MATH, COMPUTING, ENGINEERING, AND PHYSICAL SCIENCE DISCIPLINES. THE FIRST BOOK OF ITS KIND WHEN CRAFTED MORE THAN 30 YEARS AGO

TO SERVE A DIVERSE UNDERGRADUATE AUDIENCE, BURDEN, FAIRES, AND BURDEN'S NUMERICAL ANALYSIS REMAINS THE DEFINITIVE INTRODUCTION TO A VITAL AND PRACTICAL SUBJECT. IMPORTANT NOTICE: MEDIA CONTENT REFERENCED WITHIN THE PRODUCT DESCRIPTION OR THE PRODUCT TEXT MAY NOT BE AVAILABLE IN THE EBOOK VERSION.

NUMERICAL METHODS FOR SCIENTISTS AND ENGINEERS - H.M. ANTIA 2002-05-01

THIS BOOK PRESENTS AN EXHAUSTIVE AND IN-DEPTH EXPOSITION OF THE VARIOUS NUMERICAL METHODS USED IN SCIENTIFIC AND ENGINEERING COMPUTATIONS. IT EMPHASISES THE PRACTICAL ASPECTS OF NUMERICAL COMPUTATION AND DISCUSSES VARIOUS TECHNIQUES IN SUFFICIENT DETAIL TO ENABLE THEIR IMPLEMENTATION IN SOLVING A WIDE RANGE OF PROBLEMS.

FORTRAN 77 AND NUMERICAL METHODS - C. XAVIER 1994
FORTRAN IS THE PIONEER COMPUTER LANGUAGE ORIGINALLY DESIGNED TO SUIT NUMERICAL, SCIENTIFIC AND ENGINEERING COMPUTATIONS. IN SPITE OF THE BIRTH OF SEVERAL COMPUTER LANGUAGES, FORTRAN IS STILL USED AS A PRIMARY TOOL FOR PROGRAMMING NUMERICAL COMPUTATIONS. IN THIS BOOK ALL THE FEATURES OF FORTRAN 77 HAVE BEEN ELABORATELY EXPLAINED WITH THE SUPPORT OF EXAMPLES AND ILLUSTRATIONS. PROGRAMS HAVE BEEN DESIGNED AND DEVELOPED IN A SYSTEMATIC WAY FOR ALL THE CLASSICAL PROBLEMS.

ALL THE TOPICS OF NUMERICAL METHODS HAVE BEEN PRESENTED IN A SIMPLE STYLE AND ALGORITHMS DEVELOPED. COMPLETE FORTRAN 77 PROGRAMS AND MORE THAN ONE SETS OF SAMPLE DATA HAVE BEEN GIVEN FOR EACH METHOD. THE CONTENT OF THE BOOK HAVE BEEN CAREFULLY TAILORED FOR A COURSE MATERIAL OF A ONE SEMESTER COURSE FOR THE COMPUTER SCIENCE, MATHEMATICS AND PHYSICS STUDENTS.

FORTRAN 90 FOR SCIENTISTS AND ENGINEERS - BRIAN HAHN
1994-04-07

THE INTRODUCTION OF THE FORTRAN 90 STANDARD IS THE FIRST SIGNIFICANT CHANGE IN THE FORTRAN LANGUAGE IN OVER 20 YEARS. THIS BOOK IS DESIGNED FOR ANYONE WANTING TO LEARN FORTRAN FOR THE FIRST TIME OR OR A PROGRAMMER WHO NEEDS TO UPGRADE FROM FORTRAN 77 TO FORTRAN 90. EMPLOYING A PRACTICAL, PROBLEM-BASED APPROACH THIS BOOK PROVIDES A COMPREHENSIVE INTRODUCTION TO THE LANGUAGE. MORE EXPERIENCED PROGRAMMERS WILL FIND IT A USEFUL UPDATE TO THE NEW STANDARD AND WILL BENEFIT FROM THE EMPHASIS ON SCIENCE AND ENGINEERING APPLICATIONS.

FORTRAN 77 AND NUMERICAL METHODS FOR ENGINEERS AND SCIENTISTS - LARRY R. NYHOFF 1995

THIS TEXT INTRODUCES THE FORTRAN 77 PROGRAMMING LANGUAGE, WITH SPECIAL EMPHASIS ON APPLICATIONS TO NUMERICAL METHODS IN SCIENCE AND ENGINEERING. IT STRESSES

PROBLEM-SOLVING, SOUND STRUCTURED PROGRAMMING AND SOFTWARE ENGINEERING PRINCIPLES. THE BOOK'S EARLY INTRODUCTION TO SUBPROGRAMS MAKES IT POSSIBLE TO DESIGN PROGRAMS IN A MODULAR FASHION. IT INCLUDES MORE THAN 250 WRITTEN AND PROGRAMMING EXERCISES CHOSEN FROM AREAS THAT ARE RELEVANT TO SCIENCE AND ENGINEERING STUDENTS.

PROCEEDINGS OF THE SECOND INTERNATIONAL COLLOQUIUM ON NUMERICAL ANALYSIS - 2020-06-05

NUMERICAL RECIPES ROUTINES AND EXAMPLES IN BASIC (FIRST EDITION) - JULIEN C. SPROTT 1991-04-26

MODERN BASIC PROGRAMMERS WILL BE DELIGHTED TO LEARN THAT THE ROUTINES AND DEMONSTRATION PROGRAMS FROM THE HIGHLY ACCLAIMED REFERENCE BOOK NUMERICAL RECIPES: THE ART OF SCIENTIFIC COMPUTING ARE NOW AVAILABLE IN THEIR LANGUAGE OF CHOICE. NUMERICAL RECIPES, BY WILLIAM H. PRESS, BRIAN P. FLANNERY, SAUL A. TEUKOLSKY AND WILLIAM T. VETTERLING, IS A COMPUTING AND NUMERICAL ANALYSIS. IT IS ACCOMPANIED BY THE NUMERICAL RECIPES EXAMPLE BOOK CONTAINING PROGRAMS THAT DEMONSTRATE THE SUBROUTINES. JULIEN C. SPROTT HAS TRANSLATED ALL OF THE RECIPES AND PROGRAMS, OVER 350 IN ALL, INTO BASIC. THIS BOOK BRINGS THE ROUTINES AND PROGRAMS TOGETHER IN A SINGLE SOURCE THAT INCLUDES COMPUTER CODE AND CODE CAPTIONS FROM BOTH THE BOOK AND

EXAMPLE BOOK AND THE COMMENTARY FROM THE EXAMPLE BOOK. IT IS RECOMMENDED FOR USE WITH ONE OF THE MAIN NUMERICAL RECIPES BOOKS. THE AUTHOR EMPLOYS MICROSOFT QUICKBASIC 4.5, BUT THE RECIPES ARE EASILY ADAPTED FOR OTHER MODERN FORMS OF BASIC. THE PROGRAMS CONTAINED IN THIS BOOK ARE ALSO AVAILABLE AS MACHINE-READABLE CODE ON A 5.1/4 INCH FLOPPY DISKETTE FOR IBM COMPATIBLE COMPUTERS.

COMPAQ VISUAL FORTRAN - NORMAN LAWRENCE
2002-01-02

COMPAQ VISUAL FORTRAN: A GUIDE TO CREATING WINDOWS APPLICATIONS IS THE ONLY BOOK THAT SHOWS DEVELOPERS HOW TO CREATE WINDOWS APPLICATIONS USING VISUAL FORTRAN SOFTWARE. IT COMPLEMENTS DIGITAL PRESS'S SUCCESSFUL REFERENCE, THE DIGITAL VISUAL FORTRAN PROGRAMMER'S GUIDE. LAWRENCE DETAILS DEVELOPMENT METHODS AND TECHNIQUES FOR CREATING FORTRAN APPLICATIONS FOR WINDOWS, THE PLATFORM UPON WHICH DEVELOPERS CAN USE COMPAQ VISUAL FORTRAN (CVF; TO BE INTEL VISUAL FORTRAN IN THE FUTURE) TO CREATE APPLICATIONS. THE BOOK TEACHES CVF PROGRAMMING PROGRESSIVELY, BEGINNING WITH SIMPLE TASKS AND BUILDING UP TO WRITING PROFESSIONAL-LEVEL WIN32 APPLICATIONS. READERS WILL LEARN ABOUT THE POWERFUL NEW CVF GRAPHICAL USER INTERFACE, AS WELL AS THE INTRICACIES OF WINDOWS DEVELOPMENT FROM A CVF

PERSPECTIVE. THEY CAN MASTER QUICKWIN, THE WIN32 APIS INCLUDING MULTIPLE DOCUMENT INTERFACES, AND OPEN GL WITH 3D AND INTERACTIVE GRAPHICS. PROVIDES PRACTICAL, STEP-BY-STEP INSTRUCTIONS FOR DEVELOPING VISUAL FORTRAN APPLICATIONS ONLY TUTORIAL TEXT FOR COMPAQ VISUAL FORTRAN (CVF) DOESN'T REQUIRE THE PROGRAMMER TO LEARN C OR C++

NUMERICAL METHODS FOR ENGINEERS AND SCIENTISTS - J. N. SHARMA 2004

THE DESIRE FOR NUMERICAL ANSWERS TO APPLIED PROBLEMS HAS INCREASED MANIFOLD WITH THE ADVANCES MADE IN VARIOUS BRANCHES OF SCIENCE AND ENGINEERING AND RAPID DEVELOPMENT OF HIGH-SPEED DIGITAL COMPUTERS. ALTHOUGH NUMERICAL METHODS HAVE ALWAYS BEEN USEFUL, THEIR ROLE IN THE PRESENT DAY SCIENTIFIC COMPUTATIONS AND RESEARCH IS OF FUNDAMENTAL IMPORTANCE. NUMEROUS DISTINGUISHING FEATURES. THE CONTENTS OF THE BOOK HAVE BEEN ORGANIZED IN A LOGICAL ORDER AND THE TOPICS ARE DISCUSSED IN A SYSTEMATIC MANNER. CONCEPTS; ALGORITHMS AND NUMEROUS EXERCISES AT THE END OF EACH CHAPTER; HELPS STUDENTS IN PROBLEM SOLVING BOTH MANUALLY AND THROUGH COMPUTER PROGRAMMING; AN EXHAUSTIVE BIBLIOGRAPHY; AND AN APPENDIX CONTAINING SOME IMPORTANT AND USEFUL ITERATIVE METHODS FOR THE SOLUTION OF NONLINEAR COMPLEX EQUATIONS.

RIEMANN SOLVERS AND NUMERICAL METHODS FOR FLUID

DYNAMICS - ELEUTERIO F. TORO 2013-04-17

IN 1917, THE BRITISH SCIENTIST L. F. RICHARDSON MADE THE FIRST REPORTED ATTEMPT TO PREDICT THE WEATHER BY SOLVING PARTIAL DIFFERENTIAL EQUATIONS NUMERICALLY, BY HAND! IT IS GENERALLY ACCEPTED THAT RICHARDSON'S WORK, THOUGH UNSUCCESSFUL, MARKED THE BEGINNING OF COMPUTATIONAL FLUID DYNAMICS (CFD), A LARGE BRANCH OF SCIENTIFIC COMPUTING TODAY. HIS WORK HAD THE FOUR DISTINGUISHING CHARACTERISTICS OF CFD: A PRACTICAL PROBLEM TO SOLVE, A MATHEMATICAL MODEL TO REPRESENT THE PROBLEM IN THE FORM OF A SET OF PARTIAL DIFFERENTIAL EQUATIONS, A NUMERICAL METHOD AND A COMPUTER, HUMAN BEINGS IN RICHARDSON'S CASE. EIGHTY YEARS ON AND THESE FOUR ELEMENTS REMAIN THE PILLARS OF MODERN CFD. IT IS THEREFORE NOT SURPRISING THAT THE GENERALLY ACCEPTED DEFINITION OF CFD AS THE SCIENCE OF COMPUTING NUMERICAL SOLUTIONS TO PARTIAL DIFFERENTIAL OR INTEGRAL EQUATIONS THAT ARE MODELS FOR FLUID FLOW PHENOMENA, CLOSELY EMBODIES RICHARDSON'S WORK. COMPUTERS HAVE, SINCE RICHARDSON'S ERA, DEVELOPED TO UNPRECEDENTED LEVELS AND AT AN EVER DECREASING COST. PRACTICAL PROBLEMS TO SOLVED NUMERICALLY HAVE INCREASED DRAMATICALLY. IN ADDITION TO THE TRADITIONAL DEMANDS FROM METEOROLOGY, OCEANOGRAPHY, SOME BRANCHES OF PHYSICS AND FROM A RANGE OF ENGINEERING DISCIPLINES, THERE ARE AT PRESENT

FRESH DEMANDS FROM A DYNAMIC AND FAST-MOVING MANUFACTURING INDUSTRY, WHOSE TRADITIONAL BUILD-TEST-FIX APPROACH IS RAPIDLY BEING REPLACED BY THE USE OF QUANTITATIVE METHODS, AT ALL LEVELS. THE NEED FOR NEW MATERIALS AND FOR DECISION-MAKING UNDER ENVIRONMENTAL CONSTRAINTS ARE INCREASING SOURCES OF DEMANDS FOR MATHEMATICAL MODELLING, NUMERICAL ALGORITHMS AND HIGH-PERFORMANCE COMPUTING.

NUMERICAL METHODS FOR ENGINEERS - D. VAUGHAN GRIFFITHS 2006-06-22

ALTHOUGH PSEUDOCODES, MATHEMATICA, AND MATLAB ILLUSTRATE HOW ALGORITHMS WORK, DESIGNERS OF ENGINEERING SYSTEMS WRITE THE VAST MAJORITY OF LARGE COMPUTER PROGRAMS IN THE FORTRAN LANGUAGE. USING FORTRAN 95 TO SOLVE A RANGE OF PRACTICAL ENGINEERING PROBLEMS, NUMERICAL METHODS FOR ENGINEERS, SECOND EDITION PROVIDES AN INTRODUCTION TO NUMERICAL METHODS,

FORTRAN 77 AND NUMERICAL METHODS FOR ENGINEERS - GAROLD J. BORSE 1991

MODERN FORTRAN - MILAN CURCIC 2020-10-07

MODERN FORTRAN TEACHES YOU TO DEVELOP FAST, EFFICIENT PARALLEL APPLICATIONS USING TWENTY-FIRST-CENTURY FORTRAN. IN THIS GUIDE, YOU'LL DIVE INTO FORTRAN BY CREATING FUN APPS, INCLUDING A TSUNAMI SIMULATOR AND A

STOCK PRICE ANALYZER. FILLED WITH REAL-WORLD USE CASES, INSIGHTFUL ILLUSTRATIONS, AND HANDS-ON EXERCISES, MODERN FORTRAN HELPS YOU SEE THIS CLASSIC LANGUAGE IN A WHOLE NEW LIGHT. SUMMARY USING FORTRAN, EARLY AND ACCURATE FORECASTS FOR HURRICANES AND OTHER MAJOR STORMS HAVE SAVED THOUSANDS OF LIVES. BETTER DESIGNS FOR SHIPS, PLANES, AND AUTOMOBILES HAVE MADE TRAVEL SAFER, MORE EFFICIENT, AND LESS EXPENSIVE THAN EVER BEFORE. USING FORTRAN, LOW-LEVEL MACHINE LEARNING AND DEEP LEARNING LIBRARIES PROVIDE INCREDIBLY EASY, FAST, AND INSIGHTFUL ANALYSIS OF MASSIVE DATA. FORTRAN IS AN AMAZINGLY POWERFUL AND FLEXIBLE PROGRAMMING LANGUAGE THAT FORMS THE FOUNDATION OF HIGH PERFORMANCE COMPUTING FOR RESEARCH, SCIENCE, AND INDUSTRY. AND IT'S COME A LONG, LONG WAY SINCE STARTING LIFE ON IBM MAINFRAMES IN 1956. MODERN FORTRAN IS NATIVELY PARALLEL, SO IT'S UNIQUELY SUITED FOR EFFICIENTLY HANDLING PROBLEMS LIKE COMPLEX SIMULATIONS, LONG-RANGE PREDICTIONS, AND ULTRA-PRECISE DESIGNS. IF YOU'RE WORKING ON TASKS WHERE SPEED, ACCURACY, AND EFFICIENCY MATTER, IT'S TIME TO DISCOVER—OR RE-DISCOVER—FORTRAN.. ABOUT THE TECHNOLOGY FOR OVER 60 YEARS FORTRAN HAS BEEN POWERING MISSION-CRITICAL SCIENTIFIC APPLICATIONS, AND IT ISN'T SLOWING DOWN YET! ROCK-SOLID RELIABILITY AND NEW SUPPORT FOR PARALLEL PROGRAMMING MAKE FORTRAN

AN ESSENTIAL LANGUAGE FOR NEXT-GENERATION HIGH-PERFORMANCE COMPUTING. SIMPLY PUT, THE FUTURE IS IN PARALLEL, AND FORTRAN IS ALREADY THERE. PURCHASE OF THE PRINT BOOK INCLUDES A FREE eBook IN PDF, KINDLE, AND ePub FORMATS FROM MANNING PUBLICATIONS. ABOUT THE BOOK MODERN FORTRAN TEACHES YOU TO DEVELOP FAST, EFFICIENT PARALLEL APPLICATIONS USING TWENTY-FIRST-CENTURY FORTRAN. IN THIS GUIDE, YOU'LL DIVE INTO FORTRAN BY CREATING FUN APPS, INCLUDING A TSUNAMI SIMULATOR AND A STOCK PRICE ANALYZER. FILLED WITH REAL-WORLD USE CASES, INSIGHTFUL ILLUSTRATIONS, AND HANDS-ON EXERCISES, MODERN FORTRAN HELPS YOU SEE THIS CLASSIC LANGUAGE IN A WHOLE NEW LIGHT. WHAT'S INSIDE FORTRAN'S PLACE IN THE MODERN WORLD WORKING WITH VARIABLES, ARRAYS, AND FUNCTIONS MODULE DEVELOPMENT PARALLELISM WITH COARRAYS, TEAMS, AND EVENTS INTEROPERATING FORTRAN WITH C ABOUT THE READER FOR DEVELOPERS AND COMPUTATIONAL SCIENTISTS. NO EXPERIENCE WITH FORTRAN REQUIRED. ABOUT THE AUTHOR MILAN CURCIC IS A METEOROLOGIST, OCEANOGRAPHER, AND AUTHOR OF SEVERAL GENERAL-PURPOSE FORTRAN LIBRARIES AND APPLICATIONS. TABLE OF CONTENTS PART 1 - GETTING STARTED WITH MODERN FORTRAN 1 INTRODUCING FORTRAN 2 GETTING STARTED: MINIMAL WORKING APP PART 2 - CORE ELEMENTS OF FORTRAN 3 WRITING REUSABLE CODE WITH FUNCTIONS AND

SUBROUTINES 4 ORGANIZING YOUR FORTRAN CODE USING
MODULES 5 ANALYZING TIME SERIES DATA WITH ARRAYS 6
READING, WRITING, AND FORMATTING YOUR DATA PART 3 -
ADVANCED FORTRAN USE 7 GOING PARALLEL WITH
FORTRAN COARRAYS 8 WORKING WITH ABSTRACT DATA
USING DERIVED TYPES 9 GENERIC PROCEDURES AND
OPERATORS FOR ANY DATA TYPE 10 USER-DEFINED
OPERATORS FOR DERIVED TYPES PART 4 - THE FINAL
STRETCH 11 INTEROPERABILITY WITH C: EXPOSING YOUR
APP TO THE WEB 12 ADVANCED PARALLELISM WITH TEAMS,
EVENTS, AND COLLECTIVES

NUMERICAL COMPUTING WITH MODERN FORTRAN - RICHARD J.
HANSON 2013-11-21

THE FORTRAN LANGUAGE STANDARD HAS UNDERGONE
SIGNIFICANT UPGRADES IN RECENT YEARS (1990, 1995,
2003, AND 2008). NUMERICAL COMPUTING WITH MODERN
FORTRAN ILLUSTRATES MANY OF THESE IMPROVEMENTS
THROUGH PRACTICAL SOLUTIONS TO A NUMBER OF SCIENTIFIC
AND ENGINEERING PROBLEMS. READERS WILL DISCOVER
TECHNIQUES FOR MODERNIZING ALGORITHMS WRITTEN IN
FORTRAN; EXAMPLES OF FORTRAN INTEROPERATING WITH C
OR C++ PROGRAMS, PLUS USING THE IEEE FLOATING-POINT
STANDARD FOR EFFICIENCY; ILLUSTRATIONS OF PARALLEL
FORTRAN PROGRAMMING USING COARRAYS, MPI, AND
OPENMP; AND A SUPPLEMENTARY WEBSITE WITH
DOWNLOADABLE SOURCE CODES DISCUSSED IN THE BOOK.

FORTRAN 77 FOR ENGINEERS AND SCIENTISTS - LARRY R.
NYHOFF 1996

THIS BOOK IS A COMPLETE PRESENTATION OF STANDARD
FORTRAN 77 WITH SPECIAL APPLICATIONS OF NUMERICAL
METHODS IN SCIENCE AND ENGINEERING. IT SURPASSES THE
COVERAGE OF ITS BEST-SELLING PREDECESSOR, FORTRAN
77 FOR ENGINEERS AND SCIENTISTS, THIRD EDITION, BY
ADDING A CURRENT INTRODUCTION TO FORTRAN 90. THIS
BOOK EMPHASIZES SOUND STRUCTURED PROGRAMMING AND
SOFTWARE ENGINEERING PRINCIPLES; ITS CLEAR AND CONCISE
PRESENTATION IS PERFECT FOR READERS WHO POSSESS A
BACKGROUND IN ALGEBRA, WITH NO PREVIOUS PROGRAMMING
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RECIPES IS A COMPLETE TEXT AND REFERENCE BOOK ON
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CONSIDERATIONS TO ACTUAL PRACTICAL COMPUTER
ROUTINES. WITH OVER 100 NEW ROUTINES BRINGING THE

TOTAL TO WELL OVER 300, PLUS UPGRADED VERSIONS OF THE ORIGINAL ROUTINES, THIS NEW EDITION REMAINS THE MOST PRACTICAL, COMPREHENSIVE HANDBOOK OF SCIENTIFIC COMPUTING AVAILABLE TODAY. HIGHLIGHTS OF THE NEW MATERIAL INCLUDE: -A NEW CHAPTER ON INTEGRAL EQUATIONS AND INVERSE METHODS -MULTIGRID AND OTHER METHODS FOR SOLVING PARTIAL DIFFERENTIAL EQUATIONS - IMPROVED RANDOM NUMBER ROUTINES - WAVELET TRANSFORMS -THE STATISTICAL BOOTSTRAP METHOD -A NEW CHAPTER ON "LESS-NUMERICAL" ALGORITHMS INCLUDING COMPRESSION CODING AND ARBITRARY PRECISION ARITHMETIC. THE BOOK RETAINS THE INFORMAL EASY-TO-READ STYLE THAT MADE THE FIRST EDITION SO POPULAR, WHILE INTRODUCING SOME MORE ADVANCED TOPICS. IT IS AN IDEAL TEXTBOOK FOR SCIENTISTS AND ENGINEERS AND AN INDISPENSABLE REFERENCE FOR ANYONE WHO WORKS IN SCIENTIFIC COMPUTING. THE SECOND EDITION IS AVAILABE IN FORTRAN, THE TRADITIONAL LANGUAGE FOR NUMERICAL CALCULATIONS AND IN THE INCREASINGLY POPULAR C LANGUAGE.

INTRODUCTION TO PROGRAMMING WITH FORTRAN - IAN CHIVERS 2006-07-08

A COMPREHENSIVE INTRODUCTION WHICH WILL BE ESSENTIAL TO THE COMPLETE BEGINNER WHO WANTS TO LEARN THE FUNDAMENTALS OF PROGRAMMING USING A MODERN, POWERFUL AND EXPRESSIVE LANGUAGE; AS WELL AS THOSE

WANTING TO UPDATE THEIR PROGRAMMING SKILLS BY MAKING THE MOVE FROM EARLIER VERSIONS OF FORTRAN.

COMPUTER PROGRAMMING IN FORTRAN 77 - V. RAJARAMAN 1997-01-01

THIS IS A REVISED AND ENLARGED VERSION OF THE AUTHOR'S BOOK WHICH RECEIVED WIDE ACCLAMATIONS IN ITS EARLIER THREE EDITIONS. IT PROVIDES A LUCID AND IN-DEPTH INTRODUCTION TO THE PROGRAMMING LANGUAGE FORTRAN 77 WHICH IS WIDELY USED BY SCIENTISTS AND ENGINEERS. THE FOURTH EDITION IS COMPLETELY REVISED CHAPTERWISE AND ALSO MINOR CORRECTIONS INCORPORATED. A NEW STANDARD FOR FORTRAN CALLED FORTRAN 90 WAS INTRODUCED IN EARLY 90S AND COMPILERS FOR THIS VERSION OF FORTRAN WERE SOLD IN EARLY 1995 BY COMPUTER VENDORS. ALL FORTRAN 77 PROGRAMS WILL RUN WITHOUT CHANGE WITH FORTRAN 90 COMPILERS; HOWEVER SOME ASPECTS OF FORTRAN 77 HAVE BEEN DECLARED OBSOLETE AND WILL NOT RUN ON FUTURE FORTRAN COMPILERS_ THESE ARE EXPLAINED IN THIS REVISED EDITION. AN APPENDIX CONSOLIDATES THESE FEATURES. FORTRAN 90 IS INTRODUCED IN A NEW CHAPTER WHICH SUMMARISES ALL ITS FEATURES.

FORTRAN 77 WITH NUMERICAL METHODS FOR ENGINEERS AND SCIENTISTS - D. M. ETTER 1992

MATHEMATICAL MODELING AND SCALE-UP OF LIQUID CHROMATOGRAPHY - TINGYUE GU 2015-04-06

TINGYUE GU'S SECOND EDITION PROVIDES A COMPREHENSIVE SET OF NONLINEAR MULTICOMPONENT LIQUID CHROMATOGRAPHY (LC) MODELS FOR VARIOUS FORMS OF LC, SUCH AS ADSORPTION, SIZE EXCLUSION, ION-EXCHANGE, REVERSED-PHASE, AFFINITY, ISOCRATIC/GRADIENT ELUTION AND AXIAL/RADIAL FLOW LC. MUCH HAS ADVANCED SINCE THE FIRST EDITION OF THIS BOOK AND THE AUTHOR'S SOFTWARE, DESCRIBED HERE, IS NOW USED FOR TEACHING AND RESEARCH IN 32 DIFFERENT COUNTRIES. THIS BOOK COMES TOGETHER WITH A COMPLETE SOFTWARE PACKAGE WITH GRAPHICAL USER INTERFACE FOR PERSONAL COMPUTERS, OFFERED FREE FOR ACADEMIC APPLICATIONS. ADDITIONALLY, THIS BOOK PROVIDES DETAILED METHODS FOR PARAMETER ESTIMATION OF MASS TRANSFER COEFFICIENTS, BED VOIDAGE, PARTICLE POROSITY AND ISOTHERMS. THE AUTHOR GIVES EXAMPLES OF HOW TO USE THE SOFTWARE FOR PREDICTIONS AND SCALE-UP. IN CONTRAST TO THE FIRST EDITION, AUTHORS DO NOT NEED TO DEAL WITH COMPLICATED MATH. INSTEAD, THEY FOCUS ON HOW TO OBTAIN A FEW PARAMETERS FOR SIMULATION AND HOW TO COMPARE SIMULATION RESULTS WITH EXPERIMENTAL DATA. AFTER READING THE DETAILED DESCRIPTIONS IN THE BOOK, A READER IS ABLE TO USE THE SIMULATION SOFTWARE TO INVESTIGATE CHROMATOGRAPHIC BEHAVIOR WITHOUT DOING ACTUAL EXPERIMENTS. THIS BOOK IS AIMED AT READERS WHO ARE INTERESTED IN LEARNING ABOUT LC BEHAVIORS AND AT

THOSE WHO WANT TO SCALE UP LC FOR PREPARATIVE- AND LARGE-SCALE APPLICATIONS. BOTH ACADEMIC PERSONNEL AND INDUSTRIAL PRACTITIONERS CAN BENEFIT FROM THE USE OF THE BOOK. THIS NEW EDITION INCLUDES: - NEW MODELS AND SOFTWARE FOR PELLICULAR (CORED) BEADS IN LIQUID CHROMATOGRAPHY - INTRODUCTION OF USER-FRIENDLY SOFTWARE (WITH GRAPHICAL USER INTERFACE) - DETAILED DESCRIPTIONS ON HOW TO USE THE SOFTWARE - STEP-BY-STEP INSTRUCTIONS ON PARAMETER ESTIMATION FOR THE MODELS - NEW MASS-TRANSFER CORRELATIONS FOR PARAMETER ESTIMATION - EXPERIMENTAL METHODS FOR PARAMETER ESTIMATION - SEVERAL ACTUAL EXAMPLES USING THE MODEL FOR PRODUCT DEVELOPMENT AND SCALE-UP - UPDATED LITERATURE REVIEW

FORTRAN 90 PROGRAMMING - T. M. R. ELLIS 1994

OFFERING A CLEAR TUTORIAL GUIDE FOR THE NEW FORTRAN 90 LANGUAGE, THIS BOOK HIGHLIGHTS FORTRAN 90'S ROLE AS A POWERFUL TOOL FOR PROBLEM-SOLVING IN ENGINEERING AND SCIENCE. HAVING BEEN INVOLVED IN THE DEVELOPMENT OF THE NEW STANDARD, THE AUTHORS PROVIDE (AS A BONUS) AN INSIDE PERSPECTIVE ON THE DESIGN RATIONALE BEHIND THE MAJOR FEATURES OF FORTRAN 90. FEATURES COMPREHENSIVE COVERAGE OF ALL THE MAJOR LANGUAGE FEATURES, WITH CLEAR GUIDELINES ON THE DIFFERENCES BETWEEN THE 77 AND 90 STANDARDS CASE STUDIES ILLUSTRATING ITS APPLICATIONS IN SCIENTIFIC PROBLEM-SOLVING TWO

AUTHORITATIVE CHAPTERS IN CODING NUMERICAL METHODS IN FORTRAN 90 AN EARLY INTRODUCTION TO PROCEDURES AND MODULES TO ENCOURAGE A STRUCTURAL APPROACH TO PROGRAMMING 0201544466B04062001

COMPUTER FUNDAMENTALS, FORTRAN-77, C & NUMERICAL PROGRAMS - DR. G. C. LAYEK, DR. A. SAMAD, DR. S. PRAMANIK

NUMERICAL ANALYSIS AND COMPUTER PROGRAMMING - PRADIP NARAIN AND TAJENDER SINGH SALUJA 2008

PRADIP NARAIN, POPULARLY KNOWN AS PN SIR, HAS BEEN TEACHING UNDERGRADUATE AND POST-GRADUATE STUDENTS OF MATHEMATICS FOR OVER THIRTY YEARS. AFTER TOPPING THE DELHI UNIVERSITY IN MA MATHEMATICS FROM ST STEPHEN'S COLLEGE, HE TAUGHT IN THE DEPARTMENT OF MATHEMATICS, ECONOMICS AND COMMERCE AT ST STEPHEN'S COLLEGE, HINDU COLLEGE AND JESUS AND MARY COLLEGE, AND IN THE DEPARTMENT OF BUSINESS ECONOMICS AT UNIVERSITY OF DELHI (SOUTH CAMPUS). HE IS CURRENTLY THE DIRECTOR OF ALPHA PLUS STUDY CIRCLE. TAJENDER SINGH SALUJA TEACHES NACP AND MECHANICS AT PNs ALPHA PLUS STUDY CIRCLE. HE IS WELL KNOWN FOR HIS LUCID, EFFECTIVE STYLE OF TEACHING. AS A STUDENT, HE HAD RECEIVED A SILVER MEDAL IN THE NATIONAL MATHEMATICS OLYMPIAD. SALIENT FEATURES [?] [?] €€ COVERS BOTH NUMERICAL ANALYSIS (NA) AND COMPUTER PROGRAMMING

(CP) IN A SINGLE VOLUME [?] [?] €€ WRITTEN STRICTLY ACCORDING TO THE SYLLABUS AND GUIDELINES OF BA/BSC MATHEMATICS (HONS) OF DELHI UNIVERSITY [?] [?] €€ ALSO USEFUL FOR OTHER INDIAN UNIVERSITIES AND COMPETITIVE EXAMINATIONS [?] [?] €€ CONCEPTS, METHODS, 137 QUESTIONS, 76 EXAMPLES AND 58 ASSIGNMENTS GIVEN IN A SIMPLE, STEP-BY-STEP, GRADED FORM [?] [?] €€ FORMULATION OF 59 PROGRAMS MADE EASY [?] [?] €€ PERFECT FOR SELF-STUDY; NO TEACHER REQUIRED [?] [?] €€ ALL GUIDELINES PROBLEMS FULLY SOLVED [?] [?] €€ ALL QUESTIONS OF UNIVERSITY EXAMINATIONS SINCE 1994 INCLUDED AND SOLVED IN THE TEXT AT RELEVANT PLACES [?] [?] €€ CONTAINS 'FREQUENCY TABLE' INDICATING THE IMPORTANCE OF EACH TOPIC

NUMERICAL ANALYSIS - RICHARD L. BURDEN 2010-08-09
THIS WELL-RESPECTED TEXT GIVES AN INTRODUCTION TO THE THEORY AND APPLICATION OF MODERN NUMERICAL APPROXIMATION TECHNIQUES FOR STUDENTS TAKING A ONE-OR TWO-SEMESTER COURSE IN NUMERICAL ANALYSIS. WITH AN ACCESSIBLE TREATMENT THAT ONLY REQUIRES A CALCULUS PREREQUISITE, BURDEN AND FAIRES EXPLAIN HOW, WHY, AND WHEN APPROXIMATION TECHNIQUES CAN BE EXPECTED TO WORK, AND WHY, IN SOME SITUATIONS, THEY FAIL. A WEALTH OF EXAMPLES AND EXERCISES DEVELOP STUDENTS' INTUITION, AND DEMONSTRATE THE SUBJECT'S PRACTICAL APPLICATIONS TO IMPORTANT EVERYDAY

PROBLEMS IN MATH, COMPUTING, ENGINEERING, AND PHYSICAL SCIENCE DISCIPLINES. THE FIRST BOOK OF ITS KIND BUILT FROM THE GROUND UP TO SERVE A DIVERSE UNDERGRADUATE AUDIENCE, THREE DECADES LATER BURDEN AND FAIRES REMAINS THE DEFINITIVE INTRODUCTION TO A VITAL AND PRACTICAL SUBJECT. IMPORTANT NOTICE: MEDIA CONTENT REFERENCED WITHIN THE PRODUCT DESCRIPTION OR THE PRODUCT TEXT MAY NOT BE AVAILABLE IN THE EBOOK VERSION.

NUMERICAL ALGORITHMS WITH C - GIESELA ENGELN-M² LLGES 2013-11-21

MORE SCIENTISTS NOW USE C THAN ANY OTHER PROGRAMMING LANGUAGE. THIS BOOK CONTAINS PRACTICAL, COMPUTER-READY ALGORITHMS FOR MANY STANDARD METHODS OF NUMERICAL MATHEMATICS. IT DESCRIBES THE PRINCIPLES OF THE VARIOUS METHODS AND PROVIDES SUPPORT IN CHOOSING THE APPROPRIATE METHOD FOR A GIVEN TASK. TOPICS GIVEN SPECIAL EMPHASIS INCLUDE CONVERGING METHODS FOR SOLVING NONLINEAR EQUATIONS, METHODS FOR SOLVING SYSTEMS OF LINEAR EQUATIONS FOR MANY SPECIAL MATRIX STRUCTURES, AND THE SHEPARD METHOD FOR MULTIDIMENSIONAL INTERPOLATION. THE CD CONTAINS C-PROGRAMS FOR ALMOST ALL THE ALGORITHMS GIVEN IN THE BOOK AND A COMPILER, TOGETHER WITH SOFTWARE FOR GRAPHICAL PRINTING.

NUMERICAL METHODS AND SOFTWARE TOOLS IN INDUSTRIAL MATHEMATICS - A. TVEITO 2012-12-06

13. 2 ABSTRACT SADDLE POINT PROBLEMS . 282 13. 3
 PRECONDITIONED ITERATIVE METHODS . 283 13. 4
 EXAMPLES OF SADDLE POINT PROBLEMS 286 13. 5
 DISCRETIZATIONS OF SADDLE POINT PROBLEMS. 290 13. 6
 NUMERICAL RESULTS 295 III GEOMETRIC
 MODELLING 299 14 SURFACE MODELLING FROM
 SCATTERED GEOLOGICAL DATA 301 N. P. FREMMING, At.
 HJELLE, C. TARROU 14. 1 INTRODUCTION. 301
 14. 2 DESCRIPTION OF GEOLOGICAL DATA 302 14. 3
 TRIANGULATIONS 304 14. 4 REGULAR GRID
 MODELS 306 14. 5 A COMPOSITE SURFACE MODEL.
 307 14. 6 EXAMPLES 312 14. 7 CONCLUDING
 REMARKS. 314 15 VARIOSCALE SURFACES IN
 GEOGRAPHIC INFORMATION SYSTEMS 317 G. MISUND 15. 1
 INTRODUCTION. 317 15. 2 SURFACES OF
 VARIABLE RESOLUTION 318 15. 3 SURFACE
 VARIOSCALING BY NORMALIZATION 320 15. 4 EXAMPLES . .
 . 323 15. 5 FINAL REMARKS 327 16
 SURFACE MODELLING FROM BIOMEDICAL DATA 329 J. G.
 BJAALIE, M. DTLHLLEN, T. V. STENSBY 16. 1 BOUNDARY
 POLYGONS. 332 16. 2 CURVE APPROXIMATION
 333 16. 3 REDUCING TWIST IN THE CLOSED
 SURFACE 336 16. 4 SURFACE APPROXIMATION. 337 16. 5
 OPEN SURFACES. 339 16. 6 EXAMPLES 340 16.
 7 CONCLUDING REMARKS 344 17 DATA REDUCTION OF
 PIECEWISE LINEAR CURVES 347 E. ARGE, M. DTLHLLEN 17.

1 INTRODUCTION. 347
 349
 17. 2 PRELIMINARIES 351
 17. 3 THE INTERSECTING CONES METHOD 353
 17. 4 THE IMPROVED DOUGLAS METHOD 353
 5 NUMERICAL EXAMPLES 360
 17. 6 RESOLUTION SORTING 361
 18 ASPECTS OF ALGORITHMS FOR MANIFOLD INTERSECTION 365
 T. DOKKEN
 18. 1 INTRODUCTION 365
 18. 2 BASIC CONCEPTS USED

AN INTRODUCTION TO COMPUTATIONAL PHYSICS - TAO PANG 2006-01-19

THIS ADVANCED TEXTBOOK PROVIDES AN INTRODUCTION TO THE BASIC METHODS OF COMPUTATIONAL PHYSICS.

STRUCTURED FORTRAN 77 FOR ENGINEERS AND SCIENTISTS - D. M. ETTER 1983

A FIRST COURSE IN COMPUTATIONAL PHYSICS - PAUL DeVRIES 2011-01-28

COMPUTERS AND COMPUTATION ARE EXTREMELY IMPORTANT COMPONENTS OF PHYSICS AND SHOULD BE INTEGRAL PARTS OF A PHYSICIST'S EDUCATION. FURTHERMORE, COMPUTATIONAL PHYSICS IS RESHAPING THE WAY CALCULATIONS ARE MADE IN ALL AREAS OF PHYSICS. INTENDED FOR THE PHYSICS AND ENGINEERING STUDENTS WHO HAVE COMPLETED THE INTRODUCTORY PHYSICS COURSE, A FIRST COURSE IN COMPUTATIONAL PHYSICS, SECOND EDITION COVERS THE DIFFERENT TYPES OF COMPUTATIONAL PROBLEMS USING

MATLAB WITH EXERCISES DEVELOPED AROUND PROBLEMS OF PHYSICAL INTEREST. TOPICS SUCH AS ROOT FINDING, NEWTON-COTES INTEGRATION, AND ORDINARY DIFFERENTIAL EQUATIONS ARE INCLUDED AND PRESENTED IN THE CONTEXT OF PHYSICS PROBLEMS. A FEW TOPICS RARELY SEEN AT THIS LEVEL SUCH AS COMPUTERIZED TOMOGRAPHY, ARE ALSO INCLUDED. WITHIN EACH CHAPTER, THE STUDENT IS LED FROM RELATIVELY ELEMENTARY PROBLEMS AND SIMPLE NUMERICAL APPROACHES THROUGH DERIVATIONS OF MORE COMPLEX AND SOPHISTICATED METHODS, OFTEN CULMINATING IN THE SOLUTION TO PROBLEMS OF SIGNIFICANT DIFFICULTY. THE GOAL IS TO DEMONSTRATE HOW NUMERICAL METHODS ARE USED TO SOLVE THE PROBLEMS THAT PHYSICISTS FACE. READ THE REVIEW PUBLISHED IN COMPUTING IN SCIENCE & ENGINEERING MAGAZINE, MARCH/APRIL 2011 (VOL. 13, No. 2)? 2011 IEEE, PUBLISHED BY THE IEEE COMPUTER SOCIETY

NUMERICAL METHODS FOR ENGINEERS, SECOND EDITION - D. VAUGHAN GRIFFITHS 1991-03-31

NUMERICAL METHODS FOR ENGINEERS: A PROGRAMMING APPROACH IS DEVOTED TO SOLVING ENGINEERING PROBLEMS USING NUMERICAL METHODS. IT COVERS ALL AREAS OF INTRODUCTORY NUMERICAL METHODS AND EMPHASIZES TECHNIQUES OF PROGRAMMING IN FORTRAN 77, AND DEVELOPING SUBPROGRAMS USING FORTRAN FUNCTIONS AND SUBROUTINES. IN THIS WAY, THE BOOK SERVES AS AN

INTRODUCTION TO USING POWERFUL MATHEMATICAL SUBROUTINE LIBRARIES. OVER 40 MAIN PROGRAMS ARE PROVIDED IN THE TEXT AND ALL SUBROUTINES ARE LISTED IN THE APPENDIX. EACH MAIN PROGRAM IS PRESENTED WITH A SAMPLE DATA-SET AND OUTPUT, AND ALL FORTRAN PROGRAMS AND SUBROUTINES DESCRIBED IN THE TEXT CAN BE OBTAINED ON DISK FROM THE PUBLISHER. NUMERICAL METHODS

FOR ENGINEERS: A PROGRAMMING APPROACH IS AN EXCELLENT CHOICE FOR UNDERGRADUATES IN ALL ENGINEERING DISCIPLINES, PROVIDING A MUCH NEEDED BRIDGE BETWEEN CLASSICAL MATHEMATICS AND COMPUTER CODE-BASED TECHNIQUES.

NUMERICAL RECIPES IN C++ - WILLIAM H. PRESS
2017-08-08

NUMERICAL RECIPES IN C++: THE ART OF SCIENTIFIC COMPUTING BY WILLIAM H. PRESS