

## Axiom 25 User Guide

This Festschrift volume, published in celebration of the 25th Anniversary of Model Checking, features papers based on talks at the symposium "25 Years of Model Checking", 25MC, which was part of the 18th International Conference on Computer Aided Verification.

We welcome you to the 6th International Conference on E-Commerce and Web Technology (EC-Web 2005) held in Copenhagen, Denmark. It was held in conjunction with DEXA 2005. This conference was organized for the first time in Greenwich, UK, in 2000, and it has been able to attract an increasing number of participants and interest, reflecting the progress made in the field. As in the five previous years, EC-Web 2005 served as a forum that brought together researchers from academia and practitioners from industry to discuss the current state of the art in e-commerce and Web technologies. We are sure that inspirations and new ideas emerged from the intensive discussions that took place during the formal sessions and social events. Keynote addresses, research presentations and discussions during the conference helped to further develop the exchange of ideas among current researchers, developers and practitioners. The conference attracted 139 paper submissions and each paper was reviewed by three Program Committee members. The Program Committee selected 39 papers for presentation and publication (an acceptance rate of 28%). And we have to confess that this task was not that easy due to the high quality of the submitted papers.

From the Florida Keys to the theme parks, the beauty of the Everglades and the excitement of Miami, this guide covers one of America's most popular states. With informed accounts and lively reviews, the guide lays bare the state's history, modern life, culture and points of interest. Hundreds of places to eat, sleep, and drink, to suit every taste, are included as is expert guidance on outdoor activities from swimming with dolphins to snorkelling in Florida's reef. IBM® Informix® is a low-administration, easy-to-use, and embeddable database that is ideal for application development. It supports a wide range of development platforms, such as Java™, .NET, PHP, and web services, enabling developers to build database applications in the language of their choice. Informix is designed to handle RDBMS data and XML without modification and can be extended easily to handle new data sets. This IBM Redbooks® publication provides fundamentals of Informix application development. It covers the Informix Client installation and configuration for application development environments. It discusses the skills and techniques for building Informix applications with Java, ESQL/C, OLE DB, .NET, PHP, Ruby on Rails, DataBlade®, and Hibernate. The book uses code examples to demonstrate how to develop an Informix application with various drivers, APIs, and interfaces. It also provides application development troubleshooting and considerations for performance. This book is intended for developers who use IBM Informix for application development. Although some of the topics that we discuss are highly technical, the information in the book might also be helpful for managers or database administrators who are looking to better understand their Informix development environment.

This book is an introduction to the language and standard proof methods of mathematics. It is a bridge from the computational courses (such as calculus or differential equations) that students typically encounter in their first year of college to a more abstract outlook. It lays a foundation for more theoretical courses such as topology, analysis and abstract algebra. Although it may be more meaningful to the student who has had some calculus, there is really no prerequisite other than a measure of mathematical maturity.

This book, first published in 1989, introduces readers to expert systems applications in many areas of library and information science, and presents design and implementation issues encountered by librarians who have developed early systems to address the library reference function. Systems for ready reference, online database access, and enhancement of subject searching in online catalogues are all explored. Theoretical issues related to expert systems

are balanced with descriptions of actual systems currently operating or under development. Reference librarians interested in computing and automation, library managers and administrators, as well as teachers and students in library schools, will be fascinated by this account of how expert systems are helping to make the expertise of the reference librarian available in a more consistent and timely fashion and reduce the burden of repetitive, predictable questions for the professional.

Spectral sequences are among the most elegant and powerful methods of computation in mathematics. This book describes some of the most important examples of spectral sequences and some of their most spectacular applications. The first part treats the algebraic foundations for this sort of homological algebra, starting from informal calculations. The heart of the text is an exposition of the classical examples from homotopy theory, with chapters on the Leray-Serre spectral sequence, the Eilenberg-Moore spectral sequence, the Adams spectral sequence, and, in this new edition, the Bockstein spectral sequence. The last part of the book treats applications throughout mathematics, including the theory of knots and links, algebraic geometry, differential geometry and algebra. This is an excellent reference for students and researchers in geometry, topology, and algebra.

Whether trying to land that first big gig or working to perfect the necessary skills to fill a game world with sound, Aaron Marks' Complete Guide to Game Audio 3rd edition will teach the reader everything they need to know about the audio side of the multi-million dollar video game industry. This book builds upon the success of the second edition with even more expert advice from masters in the field and notes current changes within the growing video game industry. The tools of the trade excerpts will showcase what professionals, like Marty O'Donnell, Richard Jacques and Tom Salta, use to create their work and to help newcomers in the field prepare their own sound studios. Sample contracts are reviewed within the text as well as helpful advice about contractual terms and negotiable points. These sample contracts can also be found as a downloadable zip for the reader's convenience. Aaron Marks also explores how to set your financial terms and network efficiently along with examples of how projects can go completely awry and achieving the best results in often complicated situations. Aaron Marks' Complete Guide to Game Audio serves as the ultimate survival guide to navigating an audio career in the video game industry. Key Features New, full color edition with a complete update of information. Added and expanded coverage of field recording for games, creating voiceovers, adaptive and interactive audio and other cutting edge sound creation and implementation techniques used within games. Update/Replacement of interviews. Include interviews/features on international game audio professionals New and expanded interview features from game composers and sound designers of every experience level such as Keith Arem, Bradley Meyer, Christopher Tin and Rodney Gates including many international professionals like Pasi Pitkanen, Henning Nugel and Christos Panayides. Expanded and updated game console coverage of the Wii, Wii U, Xbox 360, Xbox One, PS3 and PS4. Includes new scripting and middleware concepts and techniques and review of powerful tools such as FMOD and Wwise.

The Rough Guide to Egypt is your essential travel guide to this ancient land. Fully revised and updated, the guide provides unparalleled coverage of everything from Egypt's tombs, temples and pyramids to diving in the Red Sea, desert safaris and cruising the Nile in style. With accurate maps, plans, colour spreads and beautiful colour photography throughout; you'll find informed practical advice on what to see and

do in Egypt, plus honest reviews of the best hotels, bars, clubs, shops and restaurants for all budgets. Adventurous, informative and opinionated, The Rough Guide to Egypt puts the facts at your fingertips, introducing you to the country's best reefs and beaches, the latest discoveries from antiquity, the remotest oases, nightlife only locals know and much, much more. Make the most of your time with The Rough Guide to Egypt

A comprehensive and rigorous introduction for graduate students and researchers, with applications in sequential decision-making problems.

The aim of this book is to present important software tools, basic concepts, methods, and highly sophisticated applications of computerized symbolic manipulation to mechanics problems. An overview about general-purpose symbolic software is followed by general guidelines how to develop and implement high-quality computer algebra code. The theoretical background including modeling techniques for mechanical systems is provided which allows for the computer aided generation of the symbolic equation of motion for multibody systems. It is shown how the governing equations for different types of problems in structural mechanics can be automatically derived and how to implement finite element techniques via computer algebra software.

Perturbation methods as a very powerful approach for nonlinear problems are discussed in detail and are demonstrated for a number of applications. The applications covered in this book represent some of the most advanced topics in the rapidly growing field of research on symbolic computation.

This book arose from courses taught by the authors, and is designed for both instructional and reference use during and after a first course in algebraic topology. It is a handbook for users who want to calculate, but whose main interests are in applications using the current literature, rather than in developing the theory. Typical areas of applications are differential geometry and theoretical physics. We start gently, with numerous pictures to illustrate the fundamental ideas and constructions in homotopy theory that are needed in later chapters. We show how to calculate homotopy groups, homology groups and cohomology rings of most of the major theories, exact homotopy sequences of fibrations, some important spectral sequences, and all the obstructions that we can compute from these. Our approach is to mix illustrative examples with those proofs that actually develop transferable calculational aids. We give extensive appendices with notes on background material, extensive tables of data, and a thorough index. Audience: Graduate students and professionals in mathematics and physics.

This book constitutes the thoroughly refereed post-proceedings of the International Seminar on Generic Programming held in Dagstuhl Castle, Germany in April/May 1998. The 20 revised full papers were carefully reviewed for inclusion in the book. As the first book entirely devoted to the new paradigm of generic programming, this collection offers topical sections on foundations and methodology comparisons, programming methodology, language design, and applications.

Subversives traces the FBI's secret involvement with three iconic figures at Berkeley during the 1960s: the ambitious neophyte politician Ronald Reagan, the fierce but fragile radical Mario Savio, and the liberal university president Clark Kerr. Through these converging narratives, the award-winning investigative reporter Seth Rosenfeld tells a dramatic and disturbing story of FBI surveillance, illegal break-ins, infiltration,

planted news stories, poison-pen letters, and secret detention lists. He reveals how the FBI's covert operations—led by Reagan's friend J. Edgar Hoover—helped ignite an era of protest, undermine the Democrats, and benefit Reagan personally and politically. At the same time, he vividly evokes the life of Berkeley in the early sixties—and shows how the university community, a site of the forward-looking idealism of the period, became a battleground in an epic struggle between the government and free citizens. The FBI spent more than \$1 million trying to block the release of the secret files on which *Subversives* is based, but Rosenfeld compelled the bureau to release more than 250,000 pages, providing an extraordinary view of what the government was up to during a turning point in our nation's history. Part history, part biography, and part police procedural, *Subversives* reads like a true-crime mystery as it provides a fresh look at the legacy of the sixties, sheds new light on one of America's most popular presidents, and tells a cautionary tale about the dangers of secrecy and unchecked power.

This volume constitutes the proceedings of the 14th International Conference on Theorem Proving in Higher Order Logics (TPHOLs 2001) held 3–6 September 2001 in Edinburgh, Scotland. TPHOLs covers all aspects of theorem proving in higher order logics, as well as related topics in theorem proving and verification. TPHOLs 2001 was collocated with the 11th Advanced Research Working Conference on Correct Hardware Design and Verification Methods (CHARME 2001). This was held 4–7 September 2001 in nearby Livingston, Scotland at the Institute for System Level Integration, and a joint half-day session of talks was arranged for the 5th September in Edinburgh. An excursion to Traquair House and a banquet in the Playfair Library of Old College, University of Edinburgh were also jointly organized. The proceedings of CHARME 2001 have been published as volume 2144 of Springer-Verlag's Lecture Notes in Computer Science series, with Tiziana Margaria and Tom Melham as editors. Each of the 47 papers submitted in the full research category was refereed by at least 3 reviewers who were selected by the Program Committee. Of these submissions, 23 were accepted for presentation at the conference and publication in this volume. In keeping with tradition, TPHOLs 2001 also offered a venue for the presentation of work in progress, where researchers invite discussion by means of a brief preliminary talk and then discuss their work at a poster session. A supplementary proceedings containing associated papers for work in progress was published by the Division of Informatics at the University of Edinburgh.

This volume is the most comprehensive reference work to date on Lexical Functional Grammar. The authors provide detailed and extensive coverage of the analysis of syntax, semantics, morphology, prosody, and information structure, and how these aspects of linguistic structure interact in the nontransformational framework of LFG. The book is divided into three parts. The first part examines the syntactic theory and formal architecture of LFG, with detailed explanations and comprehensive illustration, providing an unparalleled introduction to the fundamentals of the theory. Part two explores non-syntactic levels of linguistic structure, including the syntax-semantics interface and semantic representation, argument structure, information structure, prosodic structure, and morphological

structure, and how these are related in the projection architecture of LFG. Chapters in the third part illustrate the theory more explicitly by presenting explorations of the syntax and semantics of a range of representative linguistic phenomena: modification, anaphora, control, coordination, and long-distance dependencies. The final chapter discusses LFG-based work not covered elsewhere in the book, as well as new developments in the theory. The volume will be an invaluable reference for graduate and advanced undergraduate students and researchers in a wide range of linguistic sub-fields, including syntax, morphology, semantics, information structure, and prosody, as well as those working in language documentation and description.

Overviews of writers and works from the ancient Greeks through the 20th century, written by subject experts. Each author entry provides a detailed overview of the writer's life and works. Work entries cover a particular piece of world literature in detail.

This book constitutes the refereed proceedings of the 25th International Symposium on Mathematical Foundations of Computer Science, MFCS 2000, held in Bratislava/Slovakia in August/September 2000. The 57 revised full papers presented together with eight invited papers were carefully reviewed and selected from a total of 147 submissions. The book gives an excellent overview on current research in theoretical informatics. All relevant foundational issues, from mathematical logics as well as from discrete mathematics are covered. Anybody interested in theoretical computer science or the theory of computing will benefit from this book.

First Published in 1998. Routledge is an imprint of Taylor & Francis, an informa company.

This book constitutes the refereed proceedings of the Third International Workshop on Frontiers of Combining Systems, FroCoS 2000, held in Nancy, France, in March 2000. The 14 revised full papers presented together with four invited papers were carefully reviewed and selected from a total of 31 submissions. Among the topics covered are constraint processing, interval narrowing, rewriting systems, proof planning, sequent calculus, type systems, model checking, theorem proving, declarative programming, logic programming, and equational theories.

More than 100,000 entrepreneurs rely on this book for detailed, step-by-step instructions on building successful, scalable, profitable startups. The National Science Foundation pays hundreds of startup teams each year to follow the process outlined in the book, and it's taught at Stanford, Berkeley, Columbia and more than 100 other leading universities worldwide. Why? The Startup Owner's Manual guides you, step-by-step, as you put the Customer Development process to work. This method was created by renowned Silicon Valley startup expert Steve Blank, co-creator with Eric Ries of the "Lean Startup" movement and tested and refined by him for more than a decade. This 608-page how-to guide includes over 100 charts, graphs, and diagrams, plus 77 valuable checklists that

guide you as you drive your company toward profitability. It will help you:

- Avoid the 9 deadly sins that destroy startups' chances for success
- Use the Customer Development method to bring your business idea to life
- Incorporate the Business Model Canvas as the organizing principle for startup hypotheses
- Identify your customers and determine how to "get, keep and grow" customers profitably
- Compute how you'll drive your startup to repeatable, scalable profits.

The Startup Owner's Manual was originally published by K&S Ranch Publishing Inc. and is now available from Wiley. The cover, design, and content are the same as the prior release and should not be considered a new or updated product.

A programming course should concentrate as much as possible on a program's logical structure and design rather than simply show how to write code. The Functional Approach to Programming achieves this aim because logical concepts are evident and programs are transparent so can be written quickly and cleanly. In this book the authors emphasise the notions of function and function application which relate programming to familiar concepts from mathematics and logic. They introduce functional programming via examples but also explain what programs compute and how to reason about them. They show how the ideas can be implemented in the Caml language, a dialect of the ML family, and give examples of how complex programs from a variety of areas (such as arithmetic, tree algorithms, graph algorithms, text parsing and geometry) can be developed in close agreement with their specifications. Many exercises and examples are included throughout the book; solutions are also available.

Automated reasoning programs are successfully tackling challenging problems in mathematics and logic, program verification, and circuit design. This two-volume book includes all the published papers of Dr Larry Wos, one of the world's pioneers in automated reasoning. It provides a wealth of information for students, teachers, researchers, and even historians of computer science about this rapidly growing field. The book has the following special features:

- (1) It presents the strategies introduced by Wos which have made automated reasoning a practical tool for solving challenging puzzles and deep problems in mathematics and logic;
- (2) It provides a history of the field — from its earliest stages as mechanical theorem proving to its broad base now as automated reasoning;
- (3) It illustrates some of the remarkable successes automated reasoning programs have had in tackling challenging problems in mathematics, logic, program verification, and circuit design;
- (4) It includes a CD-ROM, with a searchable index of all the papers, enabling readers to peruse the papers easily for ideas.

This Handbook gives a comprehensive snapshot of a field at the intersection of mathematics and computer science with applications in physics, engineering and education. Reviews 67 software systems and offers 100 pages on applications in physics, mathematics, computer science, engineering chemistry and education. Turn your musical passion into a profitable career with this essential guide to the business and technical skills you need to succeed in the multi-billion dollar games industry. Step-by-step instructions lead you through the entire music and sound effects process - from developing the essential skills and purchasing the right equipment to keeping your clients happy. Learn everything you need to: Find the jobs. Identify your

niche, implement a business and marketing plan that includes a great demo reel, and plug into the established network to find clients. Make the deals. Make the bidding and contract process work for you by knowing the standard industry terminology, understanding how to set fees, and employing non-confrontational negotiating tactics to reach sound agreements that establish acceptable boundaries for change orders, reworks, payment options, and other essentials. Create music and sound effects for games. Master the exacting specifications for composing music and creating sound effects on the various gaming platforms and systems. The companion DVD features audio and cinematic examples, demos of useful sound editing and sequencing programs, and sample business contracts.

This volume is the product of the Proceedings of the 9th International Congress of Logic, Methodology and Philosophy of Science and contains the text of most of the invited lectures. Divided into 15 sections, the book covers a wide range of different issues. The reader is given the opportunity to learn about the latest thinking in relevant areas other than those in which they themselves may normally specialise.

A complete how-to guide for setting up a home recording studio. Get the right computer, music production hardware and software for your needs without wasting time and money on gear that won't work for you.

This revised and expanded new edition elucidates the elegance and simplicity of the fundamental theory underlying formal languages and compilation. Retaining the reader-friendly style of the 1st edition, this versatile textbook describes the essential principles and methods used for defining the syntax of artificial languages, and for designing efficient parsing algorithms and syntax-directed translators with semantic attributes. Features: presents a novel conceptual approach to parsing algorithms that applies to extended BNF grammars, together with a parallel parsing algorithm (NEW); supplies supplementary teaching tools at an associated website; systematically discusses ambiguous forms, allowing readers to avoid pitfalls; describes all algorithms in pseudocode; makes extensive usage of theoretical models of automata, transducers and formal grammars; includes concise coverage of algorithms for processing regular expressions and finite automata; introduces static program analysis based on flow equations.

The fourth edition of the Rough Guide to Costa Rica explores all corners of Costa Rica from its idyllic white-sand beaches and picturesque pueblos to verdant rainforests and steaming volcanoes. In-depth coverage of outdoor activities includes trekking through cloudforests, horseriding up Volcan Poas, snorkelling the coral reefs and whitewater-rafting down churning rivers.

A guide for constructing and using composite indicators for policy makers, academics, the media and other interested parties. In particular, this handbook is concerned with indicators which compare and rank country performance.

This book brings together the latest research in this new and exciting area of visualization, looking at classifying and modelling cognitive biases, together with user studies which reveal their undesirable impact on human judgement, and demonstrating how visual analytic techniques can provide effective support for mitigating key biases. A comprehensive coverage of this very relevant topic is provided through this collection of extended papers from the successful DECISive workshop at IEEE VIS, together with an introduction to cognitive biases and an invited chapter from a leading expert in intelligence analysis. Cognitive Biases in Visualizations will be of interest to a wide audience from those studying cognitive biases to

