

Thinking With Mathematical Models Kbaltd

Explorations of science, technology, and innovation in Africa not as the product of “technology transfer” from elsewhere but as the working of African knowledge. In the STI literature, Africa has often been regarded as a recipient of science, technology, and innovation rather than a maker of them. In this book, scholars from a range of disciplines show that STI in Africa is not merely the product of “technology transfer” from elsewhere but the working of African knowledge. Their contributions focus on African ways of looking, meaning-making, and creating. The chapter authors see Africans as intellectual agents whose perspectives constitute authoritative knowledge and whose strategic deployment of both endogenous and inbound things represents an African-centered notion of STI. “Things do not (always) mean the same from everywhere,” observes Clapperton Chakanetsa Mavhunga, the volume's editor. Western, colonialist definitions of STI are not universalizable. The contributors discuss topics that include the trivialization of indigenous knowledge under colonialism; the creative labor of chimurenga, the transformation of everyday surroundings into military infrastructure; the role of enslaved Africans in America as innovators and synthesizers; the African ethos of “fixing”; the constitutive appropriation that makes mobile technologies African; and an African innovation strategy that builds on domestic capacities. The contributions describe an Africa that is creative, technological, and scientific, showing that African STI is the latest iteration of a long process of accumulative, multicultural knowledge production. Contributors Geri Augusto, Shadreck Chirikure, Chux Daniels, Ron Eglash, Ellen Foster, Garrick E. Louis, D. A. Masolo, Clapperton Chakanetsa Mavhunga, Neda Nazemi, Toluwalogo Odumosu, Katrien Pype, Scott Remer

This book reviews the state of education in Myanmar over the past decade and a half as the country is undergoing profound albeit incomplete transformation. Set within the context of Myanmar's peace process and the wider reforms since 2012, Marie Lall's analysis of education policy and practice serves as a case study on how the reform programme has evolved. Drawing on over 15 years of field research carried out across Myanmar, the book offers a cohesive inquiry into government and non-government education sectors, the reform process, and how the transition has played out across schools, universities and wider society. It casts scrutiny on changes in basic education, the alternative monastic education, higher education and teacher education, and engages with issues of ethnic education and the debate on the role of language and the local curriculum as part of the peace process. In so doing, it gives voice to those most affected by the changing landscape of Myanmar's education and wider reform process: the students and parents of all ethnic backgrounds, teachers, teacher trainees and university staff that are rarely heard.

This Book of Abstracts is the main publication of the 69th Annual Meeting of the European Federation of Animal Science (EAAP). It contains abstracts of the

invited papers and contributed presentations of the sessions of EAAP's eleven Commissions: Animal Genetics, Animal Nutrition, Animal Management and Health, Animal Physiology, Cattle Production, Sheep and Goat Production, Pig Production, Horse Production and Livestock Farming Systems, Insects and Precision Livestock Farming.

Tomas Sedlacek has shaken the study of economics as few ever have. Named one of the "Young Guns" and one of the "five hot minds in economics" by the Yale Economic Review, he serves on the National Economic Council in Prague, where his provocative writing has achieved bestseller status. How has he done it? By arguing a simple, almost heretical proposition: economics is ultimately about good and evil. In *The Economics of Good and Evil*, Sedlacek radically rethinks his field, challenging our assumptions about the world. Economics is touted as a science, a value-free mathematical inquiry, he writes, but it's actually a cultural phenomenon, a product of our civilization. It began within philosophy--Adam Smith himself not only wrote *The Wealth of Nations*, but also *The Theory of Moral Sentiments*--and economics, as Sedlacek shows, is woven out of history, myth, religion, and ethics. "Even the most sophisticated mathematical model," Sedlacek writes, "is, de facto, a story, a parable, our effort to (rationally) grasp the world around us." Economics not only describes the world, but establishes normative standards, identifying ideal conditions. Science, he claims, is a system of beliefs to which we are committed. To grasp the beliefs underlying economics, he breaks out of the field's confines with a tour de force exploration of economic thinking, broadly defined, over the millennia. He ranges from the epic of Gilgamesh and the Old Testament to the emergence of Christianity, from Descartes and Adam Smith to the consumerism in *Fight Club*. Throughout, he asks searching meta-economic questions: What is the meaning and the point of economics? Can we do ethically all that we can do technically? Does it pay to be good? Placing the wisdom of philosophers and poets over strict mathematical models of human behavior, Sedlacek's groundbreaking work promises to change the way we calculate economic value.

This work is by two of the leading researchers in the field of fuzzy set theory and fuzzy logic. It deals with the notions of fuzzy numbers with levels of perception and levels of presumption. Many new results, examples and novel applications in engineering and management science are presented. This approach makes the book interesting and easy to understand, and provides mathematical tools which readers may find useful in the study of their own problems. Of particular interest are the discussions of applications in areas employing zero-based budgeting, the Delphi method, critical path optimization, reliability modelling, filtering and transportation. The first section is devoted to the theoretical basis for these mathematical models. The second part deals with a variety of applications in engineering and management science. There are also seven appendices which contain some special mathematical operations (Minkowski's operations) on fuzzy quantities and detailed biographical material.

Recent Advances in Geomathematics - An International Symposium

In the early 1980s there was virtually no serious communication among the various groups that contribute to mathematics education -- mathematicians, mathematics educators, classroom teachers, and cognitive scientists. Members of these groups came from different traditions, had different perspectives, and rarely gathered in the same place to discuss issues of common interest. Part of the problem was that there was no common ground for the discussions -- given the disparate traditions and perspectives. As one way of addressing this problem, the Sloan Foundation funded two conferences in the mid-1980s, bringing together members of the different communities in a ground clearing effort, designed to establish a base for communication. In those conferences, interdisciplinary teams reviewed major topic areas and put together distillations of what was known about them.* A more recent conference -- upon which this volume is based -- offered a forum in which various people involved in education reform would present their work, and members of the broad communities gathered would comment on it. The focus was primarily on college mathematics, informed by developments in K-12 mathematics. The main issues of the conference were mathematical thinking and problem solving.

Societies and Cities in the Age of Instant Access Springer Science & Business Media

How does one spread a successful educational reform? The essays here recount the authors' experiences with the scale-up process. Among their lessons are the importance of building the capacity to implement and sustain the reforms, adjusting for local culture and policy, ensuring quality control, providing the necessary infrastructure, and fostering a sense of ownership. The process is iterative and complex and requires cooperation among many actors who must ensure that the results align with goals.

?This volume situates Indians in the contemporary world and profiles the major facets of their thought and behaviour; then goes back to trace their roots to ancient thought to see how the past predisposes and the present guides Indians in their everyday life. The volume begins with a conceptual framework showing how the Indian worldview has encompassed and enveloped a variety of ideas and influences from divergent sources. As a result, Indians are both collectivists and individualists, hierarchically oriented while respecting merit and quality, religious as well as secular and sexually indulgent, spiritual as well as materialists, excessively dependent but remarkably entrepreneurial, non-violent in principle but violent in practice and comfortable in shifting between analytical, synthetic as well as intuitive approaches to reality. Such a coexistence of opposites often causes inaction, hesitation and perfunctory action, but also equips Indians to be innovative by continuously aligning their thought and behaviour to the demands of a milieu. The milieu has an inner layer consisting of desh (place), kaal (time) and paatra (person), which are embedded in the larger societal contexts of castes and classes, poverty, corruption, fragmenting politics,

conflicts and violence and unfolding global opportunities and challenges. Cultural heritage permeates in all these. Indians function in this tiered, multifactorial, dynamic space. This volume draws evidence from ancient texts and the latest national and international research, many of which were conducted by the author and his associates. It does not, however, hesitate to indulge in anecdotal evidence, cases and speculative ideas in order to complete the picture. The author takes an in-depth view of the Indian mindset without getting the reader lost in either the intricacies of ancient philosophical abyss or the trivialities of present-day non-events.

Mahatma Gandhi wrote *Hind Swaraj* or *Indian Home Rule* in his native language, Gujarati, while travelling from London to South Africa onboard SS *Kildonan Castle* between November 13 and November 22, 1909. In the book Mahatma Gandhi gives a diagnosis for the problems of humanity in modern times, the causes, and his remedy. The Gujarati edition was banned by the British on its publication in India. Gandhi then translated it into English. The English edition was not banned by the British, who rightly concluded that the book would have little impact on the English-speaking Indians' subservience to the British and British ideas.

The book describes the conceptual development of analysis from antiquity up to the end of the nineteenth century. Intra-theoretical processes are considered as well as the influence of applied problems and biographical and philosophical backgrounds. The book has thirteen chapters, each written by a leading specialist in the history of mathematics. The first ten chapters tell the story in its temporal succession (narrative order) whereas the last three chapters give surveys on the history of differential equations, the calculus of variations, and functional analysis. Special features of the book are a separate chapter on the development of the theory of complex functions in the nineteenth century and two chapters on the influence of physics on analysis. One is about the origins of analytical mechanics and one treats boundary value problems of mathematical physics (especially potential theory) in the nineteenth century. The authors present the history of analysis as near to the historical sources as is possible from the point of view of readability. The book includes comprehensive bibliographies, providing useful listings of the original literature. Mathematical examples are carefully chosen so that readers with a very modest background in mathematics may follow them.

An accessible, transregional exploration of how Islam and Asia have shaped each other's histories, societies and cultures from the seventh century to today. We are on the verge of what many are calling the "second information revolution," based on ubiquitous access to both computing and information. The technologies of instant access have potential to transform dramatically our lives. This book contains chapters by leading international experts. They discuss issues surrounding the impact of instant access on cities, daily lives, transportation, privacy, social and economic networks, community and education.

A Book that Transformed America “Friendship is first, Friendship last. But it is equally impossible to forget our Friends, and to make them answer to our ideal.”- Civil Disobedience, Henry David Thoreau Civil Disobedience was Thoreau's first published book and continues to transform American discourse. It is unusual for its symbolism and structure, its criticism of Christian institutions, and its many-layered storytelling. This Xist Classics edition has been professionally formatted for e-readers with a linked table of contents. This eBook also contains a bonus book club leadership guide and discussion questions. We hope you'll share this book with your friends, neighbors and colleagues and can't wait to hear what you have to say about it. Xist Publishing is a digital-first publisher. Xist Publishing creates books for the touchscreen generation and is dedicated to helping everyone develop a lifetime love of reading, no matter what form it takes.

MORE THAN SEVEN MILLION COPIES SOLD The beloved and bestselling novel and winner of the Booker Prize, *Life of Pi*. New York Times Bestseller * Los Angeles Times Bestseller * Washington Post Bestseller * San Francisco Chronicle Bestseller * Chicago Tribune Bestseller "A story to make you believe in the soul-sustaining power of fiction."—Los Angeles Times Book Review After the sinking of a cargo ship, a solitary lifeboat remains bobbing on the wild blue Pacific. The only survivors from the wreck are a sixteen-year-old boy named Pi, a hyena, a wounded zebra, an orangutan—and a 450-pound royal bengal tiger. The scene is set for one of the most extraordinary and beloved works of fiction in recent years. Universally acclaimed upon publication, *Life of Pi* is a modern classic.

Some Muslims believe insurance is unnecessary, as society should help its victims. Muslims can no longer ignore the fact that they live, trade and communicate with open global systems, and they can no longer ignore the need for banking and insurance. Aly Khorshid demonstrates how initial clerical apprehensions were overcome to create pioneering Muslim-friendly banking systems, and applies the lessons learnt to a workable insurance framework by which Muslims can compete with non-Muslims in business and have cover in daily life. The book uses relevant Quranic and Sunnah extracts, and the arguments of pro- and anti-insurance jurists to arrive at its conclusion that Muslims can enjoy the peace of mind and equity of an Islamic insurance scheme.

This volume contains articles written by V. I. Arnold's colleagues on the occasion of his 60th birthday. The articles are mostly devoted to various aspects of geometry of differential equations and relations to global analysis and Hamiltonian mechanics.

Indigenous Fijians were singularly fortunate in having a colonial administration that halted the alienation of communally owned land to foreign settlers and that, almost for a century, administered their affairs in their own language and through culturally congenial authority structures and institutions. From the outset, the Fijian Administration was criticised as paternalistic and stifling of individualism. But for all its problems it sustained, at least until World War II, a vigorously autonomous and peaceful social and political world in quite affluent subsistence — underpinning the celebrated exuberance of the culture exploited by the travel industry ever since.

For more than 40 years, Computerworld has been the leading source of technology news and information for IT influencers worldwide. Computerworld's award-winning Web site (Computerworld.com), twice-monthly publication, focused conference series and custom research form the hub of the world's largest global IT media network.

Jerome Bruner shows that the basic concepts of science and the humanities can be grasped intuitively at a very early age. Bruner's foundational case for the spiral curriculum has influenced a generation of educators and will continue to be a source of insight into the goals and methods of the educational process.

Henry David Thoreau built a log cabin in the Concord Forest in Massachusetts in 1845. Thoreau lived there for two years to try out an alternative to the hectic and

economically successful everyday life. The reason: He wanted to consciously feel life in harmony with nature again. The minimalist lifestyle should create space and time for the essentials. Thoreau kept a diary about his feelings and experiences during his time in the forest. This book arose from his notes. It deals with his everyday problems, with economic and philosophical considerations, with the feeling of loneliness, with the animals of the forest, with the seasons and with the reading of classical works.

"Time travel, UFOs, mysterious planets, stigmata, rock-throwing poltergeists, huge footprints, bizarre rains of fish and frogs-nearly a century after Charles Fort's *Book of the Damned* was originally published, the strange phenomenon presented in this book remains largely unexplained by modern science. Through painstaking research and a witty, sarcastic style, Fort captures the imagination while exposing the flaws of popular scientific explanations. Virtually all of his material was compiled and documented from reports published in reputable journals, newspapers and periodicals because he was an avid collector. Charles Fort was somewhat of a recluse who spent most of his spare time researching these strange events and collected these reports from publications sent to him from around the globe. This was the first of a series of books he created on unusual and unexplained events and to this day it remains the most popular. If you agree that truth is often stranger than fiction, then this book is for you"--Taken from Good Reads website.

The 'school-to-prison pipeline' has received much attention in the education world over the past few years. A fast-growing and disturbing development, it describes a range of circumstances whereby children are funneled out of public schools and into the juvenile and criminal justice systems. A trenchant and wide-ranging look at this alarming national trend, *'Disrupting the School-to-Prison Pipeline'* is unsparing in its account of the problem while pointing in the direction of meaningful and much-needed reforms.

In a bold and boundary defining work, Angus Fletcher clears a space for an intellectual encounter with the shape of human imagining. Joining literature and topology—a branch of mathematics—he maps the ways the imagination's contours are formed by the spherical earth's patterns and cycles, and shows how the world we inhabit also inhabits us.

This report provides information about new diagnostic approaches, new therapeutic regimens and better understanding of the distribution of the disease with high-quality mapping. The roles of human and animal reservoirs and the tsetse fly vectors that transmit the parasites are emphasized. The new information has formed the basis for an integrated strategy with which it is hoped that elimination of HAT will be achieved. The report also contains recommendations on the approaches that will lead to elimination of the disease. Human African Trypanosomiasis (HAT) is a disease that afflicts populations in rural Africa, where the tsetse fly vector that transmits the causative trypanosome parasites thrives. There are two forms of HAT: one, known as gambiense HAT, is

endemic in West and Central Africa and causes over 95% of current cases; the other, known as rhodesiense HAT, is endemic in East and southern Africa and accounts for the remainder of cases. The presence of parasites in the brain leads to progressive neurological breakdown. Changes to sleep-wake patterns are among the symptoms that characterize the disease, also known as "sleeping sickness". Eventually, patients fall into a coma and die if not treated. Different treatments are available against parasites present in the haemolymphatic system (first stage) and those that have entered the brain (second stage). Currently, lumbar puncture is required to select the appropriate drug.

Nowadays, cerebral palsy (CP) rehabilitation, along with medical and surgical interventions in children with CP, leads to better motor and postural control and can ensure ambulation and functional independence. In achieving these improvements, many modern practices may be used, such as comprehensive multidisciplinary assessment, clinical decision making, multilevel surgery, botulinum toxin applications, robotic ambulation applications, treadmill, and other walking aids to increase the quality and endurance of walking. Trainings are based on neurodevelopmental therapy, muscle training and strength applications, adaptive equipment and orthotics, communication, technological solves, and many others beyond the scope of this book. In the years of clinical and academic experiences, children with cerebral palsy have shown us that the world needs a book to give clinical knowledge to health professionals regarding these important issue. This book is an attempt to fulfill and to give "current steps" about CP. The book is intended for use by physicians, therapists, and allied health professionals who treat/rehabilitate children with CP. We focus on the recent concepts in the treatment of body and structure problems and describe the associated disability, providing suggestions for further reading. All authors presented the most frequently used and accepted treatment methods with scientifically proven efficacy and included references at the end of each chapter.

Formal concept analysis has been developed as a field of applied mathematics based on the mathematization of concept and concept hierarchy. It thereby allows us to mathematically represent, analyze, and construct conceptual structures. The formal concept analysis approach has been proven successful in a wide range of application fields. This book constitutes a comprehensive and systematic presentation of the state of the art of formal concept analysis and its applications. The first part of the book is devoted to foundational and methodological topics. The contributions in the second part demonstrate how formal concept analysis is successfully used outside of mathematics, in linguistics, text retrieval, association rule mining, data analysis, and economics. The third part presents applications in software engineering.

The old saying goes, "To the man with a hammer, everything looks like a nail." But anyone who has done any kind of project knows a hammer often isn't enough. The more tools you have at your disposal, the more likely you'll use the right tool for the job - and get it done right. The same is true when it comes to your thinking. The quality of

your outcomes depends on the mental models in your head. And most people are going through life with little more than a hammer. Until now. The Great Mental Models: General Thinking Concepts is the first book in The Great Mental Models series designed to upgrade your thinking with the best, most useful and powerful tools so you always have the right one on hand. This volume details nine of the most versatile, all-purpose mental models you can use right away to improve your decision making, productivity, and how clearly you see the world. You will discover what forces govern the universe and how to focus your efforts so you can harness them to your advantage, rather than fight with them or worse yet- ignore them. Upgrade your mental toolbox and get the first volume today. AUTHOR BIOGRAPHY Farnam Street (FS) is one of the world's fastest growing websites, dedicated to helping our readers master the best of what other people have already figured out. We curate, examine and explore the timeless ideas and mental models that history's brightest minds have used to live lives of purpose. Our readers include students, teachers, CEOs, coaches, athletes, artists, leaders, followers, politicians and more. They're not defined by gender, age, income, or politics but rather by a shared passion for avoiding problems, making better decisions, and lifelong learning. AUTHOR HOME Ottawa, Ontario, Canada

A resource for middle and high school teachers offers activities, lesson plans, experiments, demonstrations, and games for teaching physics, chemistry, biology, and the earth and space sciences.

Provides a pan-African synthesis of community-based natural resource management (CBNRM), drawing on multiple authors and a wide range of documented experiences from Southern, Eastern, Western and Central Africa. This title discusses the degree to which CBNRM has met poverty alleviation, economic development and nature conservation objectives.

Birth to Three Matters is essential reading for anyone involved in providing care and education or developing policy for children between birth and three. the book explores the structure and content of the DfES Framework, examines a range of issues that impact on the development of quality in early years settings and features contributions from influential early years experts, many of whom were involved in the development of the Birth to Three Matters Framework.

Includes authors, titles, subjects.

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