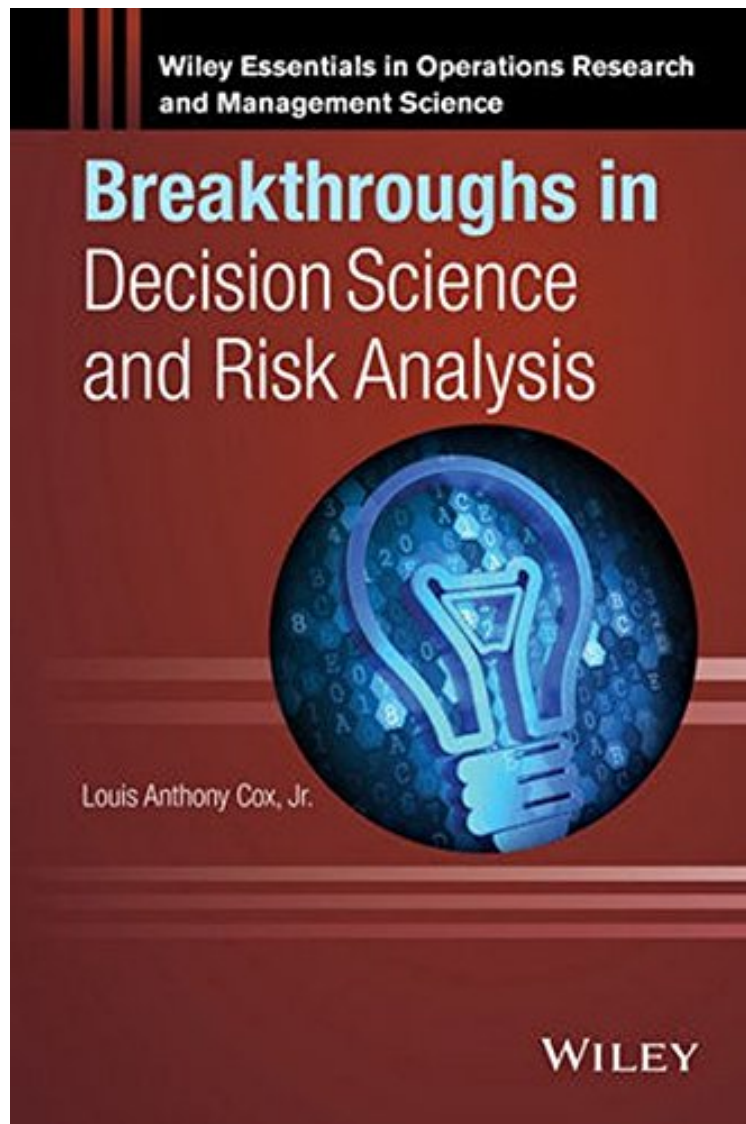


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Breakthroughs in Decision Science and Risk Analysis (Wiley Essentials in Operations Research and Management Science)

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From Wiley : Breakthroughs in Decision Science and Risk Analysis (Wiley Essentials in Operations Research and Management Science) before purchasing it in order to gage whether or not it would be worth my time, and all praised Breakthroughs in Decision Science and Risk Analysis (Wiley Essentials in Operations Research and Management Science):

3 of 3 people found the following review helpful. Provides the current state around recent advances in decision and risk analysis
By Ben Rothke
Decision and risk analysis is the discipline comprising the philosophy, theory, methodology, and professional practice necessary to address important decisions in a formal manner. Decision analysis includes many procedures, methods, and tools for identifying, clearly representing, and formally assessing important aspects of a decision, for prescribing a recommended course of action by applying the maximum expected utility action axiom to a well-formed representation of the decision, and for translating the formal representation of a decision and its corresponding recommendation into insight for the decision maker and other stakeholders. In *Breakthroughs in Decision Science and Risk Analysis*, Dr. Louis Anthony Cox and his 14 contributors, have written a valuable text that provides the current state around recent advances in decision and risk analysis. The book is meant for the decision and risk analysis professional, and is in no way an introduction to the topic. The authors cover the various elements that make up decision and risk analysis, including psychology, economics, statistics, engineering and more. There are numerous discussions in the book on how decision and risk analysis can be applied to make better policy and management decisions, using empirical evidence, as opposed to basing it on gut decisions. Those in the field will certainly find this book a valuable reference.

Discover recent powerful advances in the theory, methods, and applications of decision and risk analysis
Focusing on modern advances and innovations in the field of decision analysis (DA), *Breakthroughs in Decision Science and Risk Analysis* presents theories and methods for making, improving, and learning from significant practical decisions. The book explains these new methods and important applications in an accessible and stimulating style for readers from multiple backgrounds, including psychology, economics, statistics, engineering, risk analysis, operations research, and management science. Highlighting topics not conventionally found in DA textbooks, the book illustrates genuine advances in practical decision science, including developments and trends that depart from, or break with, the standard axiomatic DA paradigm in fundamental and useful ways. The book features methods for coping with realistic decision-making challenges such as online adaptive learning algorithms, innovations in robust decision-making, and the use of a variety of models to explain available data and recommend actions. In addition, the book illustrates how these techniques can be applied to dramatically improve risk management decisions. *Breakthroughs in Decision Science and Risk Analysis* also includes: An emphasis on new approaches rather than only classical and traditional ideas
Discussions of how decision and risk analysis can be applied to improve high-stakes policy and management decisions
Coverage of the potential value and realism of decision science within applications in financial, health, safety, environmental, business, engineering, and security risk management
Innovative methods for deciding what actions to take when decision problems are not completely known or described or when useful probabilities cannot be specified
Recent breakthroughs in the psychology and brain science of risky decisions, mathematical foundations and techniques, and integration with learning and pattern recognition methods from computational intelligence
Breakthroughs in Decision Science and Risk Analysis is an ideal reference for researchers, consultants, and practitioners in the fields of decision science, operations research, business, management science, engineering, statistics, and mathematics. The book is also an appropriate guide for managers, analysts, and decision and policy makers in the areas of finance, health and safety, environment, business, engineering, and security risk management.

"Dr. Louis Anthony Cox and 14 contributors have written a valuable text that describes the current state and recent advances in decision and risk analysis. Besides addressing breakthroughs in the psychology and brain science of risky decisions, it also includes methods for deciding what actions to take when information is sparse and useful probabilities cannot be determined." (Ben Rothke, May 2016)
From the Back Cover
Discover recent powerful advances in the theory, methods, and applications of decision and risk analysis
Focusing on recent advances and innovations in the field of decision analysis (DA), *Breakthroughs in Decision Science and Risk Analysis* presents theories and methods for making, improving, and learning from significant practical decisions. The book explains these new methods and important applications in an easily accessible and stimulating style for readers from multiple backgrounds, including psychology, economics, statistics, engineering, risk analysis, operations research, and management science. Emphasizing topics not traditionally found in DA literature, the book illustrates genuine advances in practical decision science and includes developments and trends that depart from, or break with, the standard axiomatic DA paradigm in fundamental and useful ways. The book features methods for coping with realistic decision-making challenges, including online adaptive learning algorithms, innovations in robust decision-making, and the use of a variety of models to provide more-or-less plausible explanations for available data and recommended actions. In addition, the book illustrates how these techniques can be applied to dramatically improve risk management decisions. *Breakthroughs in Decision Science and Risk Analysis* also includes: An emphasis on new approaches rather than classical and traditional ideas
Discussions of how decision and risk analysis can be applied to improve high-stakes policy and management decisions
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useful probabilities cannot be specified Recent breakthroughs in the psychology and brain science of risky decisions, mathematical foundations and techniques, and integration with learning and pattern recognition methods from computational intelligence Breakthroughs in Decision Science and Risk Analysis is an ideal reference for researchers, consultants, and practitioners in the fields of decision science, operations research, business, management science, engineering, statistics, and mathematics. The book is also an appropriate guide for managers, analysts, and decision and policy makers in the areas of finance, health and safety, environment, business, engineering, and security risk management. Louis Anthony (Tony) Cox, Jr. PhD, is Chief Sciences Officer of NextHealth Technologies, a Denver-based health care advanced analytics software company and President of Cox Associates, Inc., a Denver-based applied research company specializing in quantitative health risk assessment, risk analysis, causal modeling, and operations research. Dr. Cox is also Clinical Professor of Biostatistics and Informatics at the University of Colorado at Denver, a member of the National Academy of Engineering, and Editor-in-Chief of Risk Analysis: An International Journal.

About the Author Louis Anthony (Tony) Cox, Jr. PhD, is Chief Sciences Officer of NextHealth Technologies, a Denver-based health care advanced analytics software company and President of Cox Associates, Inc., a Denver-based applied research company specializing in quantitative health risk assessment, risk analysis, causal modeling, and operations research. Dr. Cox is also Clinical Professor of Biostatistics and Informatics at the University of Colorado at Denver, a member of the National Academy of Engineering, and Editor-in-Chief of Risk Analysis: An International Journal.