

Probabilistic Search for Tracking Targets: Theory and Modern Applications

Irad Ben-Gal, Eugene Kagan



<u>Click here</u> if your download doesn"t start automatically

Probabilistic Search for Tracking Targets: Theory and Modern Applications

Irad Ben-Gal, Eugene Kagan

Probabilistic Search for Tracking Targets: Theory and Modern Applications Irad Ben-Gal, Eugene Kagan

Presents a probabilistic and information-theoretic framework for a search for static or moving targets in discrete time and space.

Probabilistic Search for Tracking Targets uses an information-theoretic scheme to present a unified approach for known search methods to allow the development of new algorithms of search. The book addresses search methods under different constraints and assumptions, such as search uncertainty under incomplete information, probabilistic search scheme, observation errors, group testing, search games, distribution of search efforts, single and multiple targets and search agents, as well as online or offline search schemes. The proposed approach is associated with path planning techniques, optimal search algorithms, Markov decision models, decision trees, stochastic local search, artificial intelligence and heuristic information-seeking methods. Furthermore, this book presents novel methods of search for static and moving targets along with practical algorithms of partitioning and search and screening.

Probabilistic Search for Tracking Targets includes complete material for undergraduate and graduate courses in modern applications of probabilistic search, decision-making and group testing, and provides several directions for further research in the search theory.

The authors:

- Provide a generalized information-theoretic approach to the problem of real-time search for both static and moving targets over a discrete space.
- Present a theoretical framework, which covers known information-theoretic algorithms of search, and forms a basis for development and analysis of different algorithms of search over probabilistic space.
- Use numerous examples of group testing, search and path planning algorithms to illustrate direct implementation in the form of running routines.
- Consider a relation of the suggested approach with known search theories and methods such as search and screening theory, search games, Markov decision process models of search, data mining methods, coding theory and decision trees.
- Discuss relevant search applications, such as quality-control search for nonconforming units in a batch or a military search for a hidden target.
- Provide an accompanying website featuring the algorithms discussed throughout the book, along with practical implementations procedures.

Download Probabilistic Search for Tracking Targets: Theory ...pdf

<u>Read Online Probabilistic Search for Tracking Targets: Theor ...pdf</u>

Download and Read Free Online Probabilistic Search for Tracking Targets: Theory and Modern Applications Irad Ben-Gal, Eugene Kagan

From reader reviews:

Genia Vanderford:

Here thing why this Probabilistic Search for Tracking Targets: Theory and Modern Applications are different and reputable to be yours. First of all examining a book is good but it depends in the content of the usb ports which is the content is as delightful as food or not. Probabilistic Search for Tracking Targets: Theory and Modern Applications giving you information deeper and different ways, you can find any guide out there but there is no book that similar with Probabilistic Search for Tracking Targets: Theory and Modern Applications. It gives you thrill studying journey, its open up your personal eyes about the thing in which happened in the world which is might be can be happened around you. It is easy to bring everywhere like in park your car, café, or even in your means home by train. Should you be having difficulties in bringing the branded book maybe the form of Probabilistic Search for Tracking Targets: Theory and Modern Applications in e-book can be your choice.

Nancy Harris:

This book untitled Probabilistic Search for Tracking Targets: Theory and Modern Applications to be one of several books that best seller in this year, this is because when you read this book you can get a lot of benefit on it. You will easily to buy this particular book in the book retail outlet or you can order it through online. The publisher on this book sells the e-book too. It makes you more easily to read this book, because you can read this book in your Mobile phone. So there is no reason to you personally to past this reserve from your list.

John Bonilla:

Probabilistic Search for Tracking Targets: Theory and Modern Applications can be one of your nice books that are good idea. Many of us recommend that straight away because this book has good vocabulary that can increase your knowledge in terminology, easy to understand, bit entertaining however delivering the information. The article author giving his/her effort to put every word into joy arrangement in writing Probabilistic Search for Tracking Targets: Theory and Modern Applications although doesn't forget the main place, giving the reader the hottest and based confirm resource information that maybe you can be among it. This great information can easily drawn you into new stage of crucial pondering.

David Gonzales:

Some people said that they feel uninterested when they reading a guide. They are directly felt this when they get a half portions of the book. You can choose typically the book Probabilistic Search for Tracking Targets: Theory and Modern Applications to make your own reading is interesting. Your own personal skill of reading proficiency is developing when you including reading. Try to choose easy book to make you enjoy to learn it and mingle the feeling about book and examining especially. It is to be initially opinion for you to like to open up a book and learn it. Beside that the publication Probabilistic Search for Tracking Targets:

Theory and Modern Applications can to be your brand-new friend when you're truly feel alone and confuse in doing what must you're doing of these time.

Download and Read Online Probabilistic Search for Tracking Targets: Theory and Modern Applications Irad Ben-Gal, Eugene Kagan #FTBU3H9C26Y

Read Probabilistic Search for Tracking Targets: Theory and Modern Applications by Irad Ben-Gal, Eugene Kagan for online ebook

Probabilistic Search for Tracking Targets: Theory and Modern Applications by Irad Ben-Gal, Eugene Kagan Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Probabilistic Search for Tracking Targets: Theory and Modern Applications by Irad Ben-Gal, Eugene Kagan books to read online.

Online Probabilistic Search for Tracking Targets: Theory and Modern Applications by Irad Ben-Gal, Eugene Kagan ebook PDF download

Probabilistic Search for Tracking Targets: Theory and Modern Applications by Irad Ben-Gal, Eugene Kagan Doc

Probabilistic Search for Tracking Targets: Theory and Modern Applications by Irad Ben-Gal, Eugene Kagan Mobipocket

Probabilistic Search for Tracking Targets: Theory and Modern Applications by Irad Ben-Gal, Eugene Kagan EPub