Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics)

Charles L. Byrne

Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics)

Charles L. Byrne

Iterative Optimization in Inverse Problems (**Monographs and Research Notes in Mathematics**) Charles L. Byrne

Iterative Optimization in Inverse Problems brings together a number of important iterative algorithms for medical imaging, optimization, and statistical estimation. It incorporates recent work that has not appeared in other books and draws on the author's considerable research in the field, including his recently developed class of SUMMA algorithms. Related to sequential unconstrained minimization methods, the SUMMA class includes a wide range of iterative algorithms well known to researchers in various areas, such as statistics and image processing.

Organizing the topics from general to more specific, the book first gives an overview of sequential optimization, the subclasses of auxiliary-function methods, and the SUMMA algorithms. The next three chapters present particular examples in more detail, including barrier- and penalty-function methods, proximal minimization, and forward-backward splitting. The author also focuses on fixed-point algorithms for operators on Euclidean space and then extends the discussion to include distance measures other than the usual Euclidean distance. In the final chapters, specific problems illustrate the use of iterative methods previously discussed. Most chapters contain exercises that introduce new ideas and make the book suitable for self-study.

Unifying a variety of seemingly disparate algorithms, the book shows how to derive new properties of algorithms by comparing known properties of other algorithms. This unifying approach also helps researchers?from statisticians working on parameter estimation to image scientists processing scanning data to mathematicians involved in theoretical and applied optimization?discover useful related algorithms in areas outside of their expertise.

Download and Read Free Online Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) Charles L. Byrne

---

From reader reviews:

Rose Cotner:

Reading can called thoughts hangout, why? Because while you are reading a book particularly book entitled Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) your thoughts will drift away trough every dimension, wandering in each and every aspect that maybe unidentified for but surely will become your mind friends. Imaging every single word written in a e-book then become one form conclusion and explanation in which maybe you never get prior to. The Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) giving you an additional experience more than blown away your brain but also giving you useful data for your better life on this era. So now let us present to you the relaxing pattern the following is your body and mind will probably be pleased when you are finished looking at it, like winning a casino game. Do you want to try this extraordinary investing spare time activity?

Denise Lee:

Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) can be one of your nice books that are good idea. Many of us recommend that straight away because this reserve has good vocabulary that can increase your knowledge in terminology, easy to understand, bit entertaining but nonetheless delivering the information. The copy writer giving his/her effort to put every word into pleasure arrangement in writing Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) but doesn't forget the main point, giving the reader the hottest in addition to based confirm resource facts that maybe you can be certainly one of it. This great information could drawn you into fresh stage of crucial pondering.

Agnes Shivers:

Your reading sixth sense will not betray a person, why because this Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) book written by well-known writer who really knows well how to make book that may be understand by anyone who else read the book. Written throughout good manner for you, dripping every ideas and producing skill only for eliminate your hunger then you still doubt Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) as good book not simply by the cover but also through the content. This is one publication that can break don't ascertain book by its include, so do you still needing an additional sixth sense to pick this kind of!? Oh come on your reading through sixth sense already alerted you so why you have to listening to one more sixth sense.

John Rowland:

As we know that book is significant thing to add our expertise for everything. By a e-book we can know everything you want. A book is a set of written, printed, illustrated or even blank sheet. Every year ended up

being exactly added. This e-book Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) was filled with regards to science. Spend your extra time to add your knowledge about your research competence. Some people has various feel when they reading some sort of book. If you know how big advantage of a book, you can feel enjoy to read a book. In the modern era like today, many ways to get book that you wanted.

Download and Read Online Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) Charles L. Byrne #SVROL6FKMBX

Read Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) by Charles L. Byrne for online ebook

Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) by Charles L. Byrne 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 Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) by Charles L. Byrne books to read online.

Online Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) by Charles L. Byrne ebook PDF download

Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) by Charles L. Byrne Doc

Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) by Charles L. Byrne Mobipocket

Iterative Optimization in Inverse Problems (Monographs and Research Notes in Mathematics) by Charles L. Byrne EPub