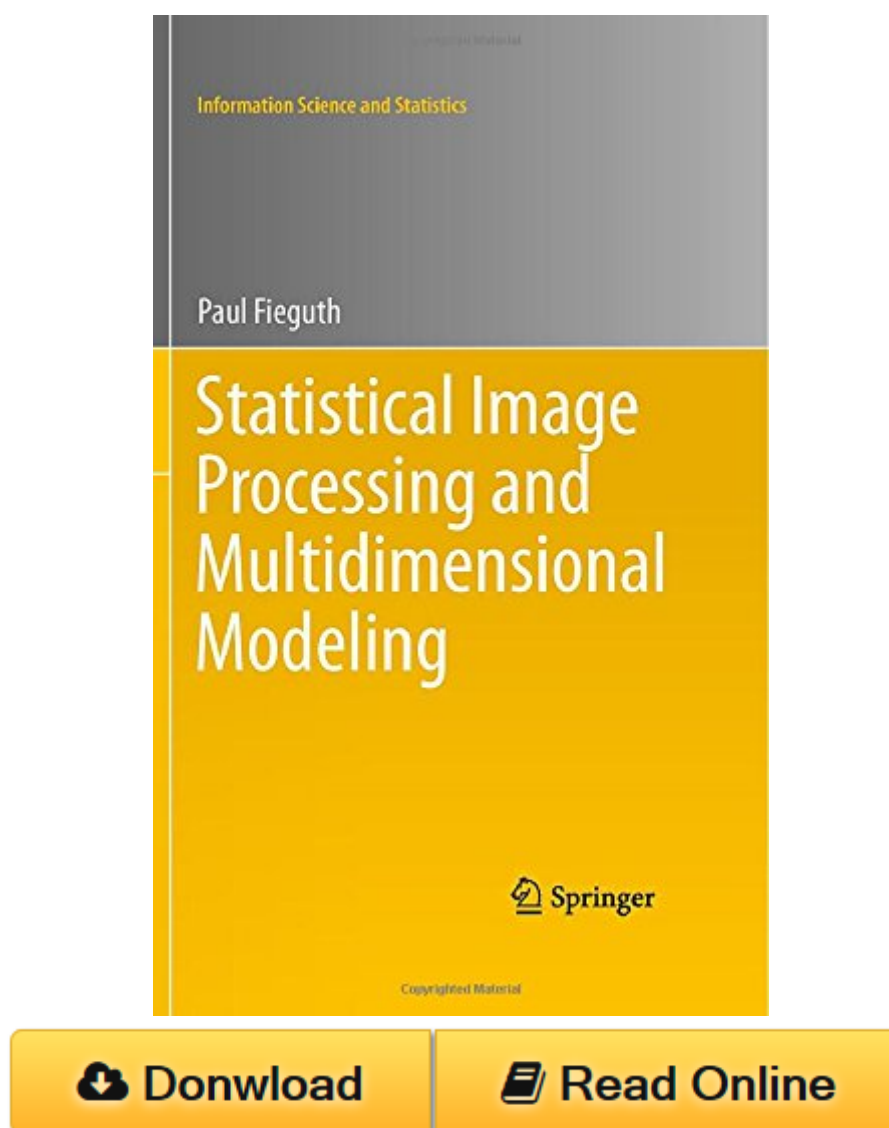


Statistical Image Processing and Multidimensional Modeling (Information Science and Statistics) PDF



Statistical Image Processing and Multidimensional Modeling (Information Science and Statistics) by Paul Fieguth ISBN 1441972935

Images are all around us! The proliferation of low-cost, high-quality imaging devices has led to an explosion in acquired images. When these images are acquired from a microscope, telescope, satellite, or medical imaging device, there is a statistical image processing task: the inference of something—an artery, a road, a DNA marker, an oil spill—from imagery, possibly noisy, blurry, or incomplete. A great many textbooks have been written on image processing. However this book does not so much focus on *images*, per se, but rather on spatial data sets, with one or more measurements taken over a two or higher dimensional space, and to which standard image-

processing algorithms may not apply. There are many important data analysis methods developed in this text for such statistical image problems. Examples abound throughout remote sensing (satellite data mapping, data assimilation, climate-change studies, land use), medical imaging (organ segmentation, anomaly detection), computer vision (image classification, segmentation), and other 2D/3D problems (biological imaging, porous media). The goal, then, of this text is to address methods for solving multidimensional statistical problems. The text strikes a balance between mathematics and theory on the one hand, versus applications and algorithms on the other, by deliberately developing the basic theory (Part I), the mathematical modeling (Part II), and the algorithmic and numerical methods (Part III) of solving a given problem. The particular emphases of the book include inverse problems, multidimensional modeling, random fields, and hierarchical methods.

Statistical Image Processing and Multidimensional Modeling (Information Science and Statistics) Review

This Statistical Image Processing and Multidimensional Modeling (Information Science and Statistics) book is not really ordinary book, you have it then the world is in your hands. The benefit you get by reading this book is actually information inside this reserve incredible fresh, you will get information which is getting deeper an individual read a lot of information you will get. This kind of Statistical Image Processing and Multidimensional Modeling (Information Science and Statistics) without we recognize teach the one who looking at it become critical in imagining and analyzing. Don't be worry Statistical Image Processing and Multidimensional Modeling (Information Science and Statistics) can bring any time you are and not make your tote space or bookshelves' grow to be full because you can have it inside your lovely laptop even cell phone. This Statistical Image Processing and Multidimensional Modeling (Information Science and Statistics) having great arrangement in word and layout, so you will not really feel uninterested in reading.