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Sommario/riassunto	The massive amount of nonstandard high-dimensional brain imaging data being generated is often difficult to analyze using current techniques. This challenge in brain image analysis requires new computational approaches and solutions. But none of the research papers or books in the field describe the quantitative techniques with detailed illustrations of actual imaging data and computer codes. Using

MATLAB and case study data sets, Statistical and Computational Methods in Brain Image Analysis is the first book to explicitly explain how to perform statistical analysis on brain imaging data. The book focuses on methodological issues in analyzing structural brain imaging modalities such as MRI and DTI. Real imaging applications and examples elucidate the concepts and methods. In addition, most of the brain imaging data sets and MATLAB codes are available on the author's website. By supplying the data and codes, this book enables researchers to start their statistical analyses immediately. Also suitable for graduate students, it provides an understanding of the various statistical and computational methodologies used in the field as well as important and technically challenging topics.--