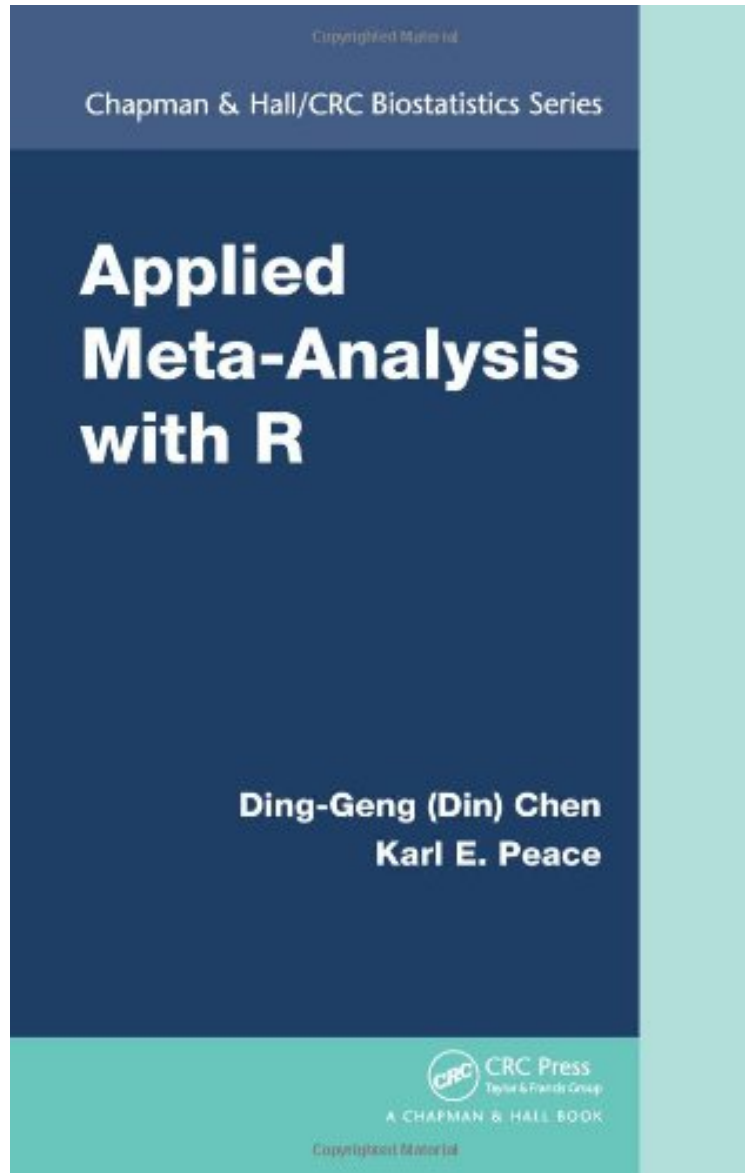


[E-BOOK] Applied Meta-Analysis with R (Chapman Hall/CRC Biostatistics Series)

# Applied Meta-Analysis with R (Chapman Hall/CRC Biostatistics Series)

*Ding-Geng (Din) Chen, Karl E. Peace*

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**Ding-Geng (Din) Chen, Karl E. Peace : Applied Meta-Analysis with R (Chapman Hall/CRC Biostatistics Series)** before purchasing it in order to gage whether or not it would be worth my time, and all praised Applied Meta-Analysis with R (Chapman Hall/CRC Biostatistics Series):

1 of 1 people found the following review helpful. Review: Applied Meta-Analysis with R By Oscar Linares, MDI

highly recommend this book to anyone doing meta-analysis in general, and meta-analysis with R, in particular. The book brings you up to speed quickly and the examples are relevant to actual research. Using R for meta-analysis in this book is like "standing on the shoulders of giants" as one does their work on meta-analysis. Oscar A. Linares, MD Mathematical Medicine Biostatistics Unit Plymouth Pharmacokinetic Modeling Study Group

In biostatistical research and courses, practitioners and students often lack a thorough understanding of how to apply statistical methods to synthesize biomedical and clinical trial data. Filling this knowledge gap, *Applied Meta-Analysis with R* shows how to implement statistical meta-analysis methods to real data using R. Drawing on their extensive research and teaching experiences, the authors provide detailed, step-by-step explanations of the implementation of meta-analysis methods using R. Each chapter gives examples of real studies compiled from the literature. After presenting the data and necessary background for understanding the applications, various methods for analyzing meta-data are introduced. The authors then develop analysis code using the appropriate R packages and functions. This systematic approach helps readers thoroughly understand the analysis methods and R implementation, enabling them to use R and the methods to analyze their own meta-data. Suitable as a graduate-level text for a meta-data analysis course, the book is also a valuable reference for practitioners and biostatisticians (even those with little or no experience in using R) in public health, medical research, governmental agencies, and the pharmaceutical industry.

"This book is one of the first books introducing how to use R packages and functions for meta-analyses. a well-written book suitable for graduate students and practitioners in the fields of medicine and health. It gives updated information for R packages and meta-analysis. The detailed, step-by-step explanations make this book a nice reference, especially for self-study learners." *Biometrics*, September 2015 " this is the first book about meta-analysis which exclusively uses R Although the book is listed under the biostatistics series and the examples are built around medical data sets, the book is accessible for those in the social sciences with a quantitative interest as well. the authors present the output of the R functions as well as the results of step-by-step implementations in R. This approach helps R users as well as meta-analysis novices to gain a deeper understanding of the subject matter." *Psychometrika*, Vol. 80, June 2015 " this book may be a suitable text for learning metadata analysis, particularly for students seeking degrees in statistics or biostatistics. This book should equally serve as a valuable reference regarding self-study and learning tool for related practitioners and biostatisticians, particularly those with little or no experience in using R. Overall, this is a clearly written and sequentially well-organized book. One may find it easy to read and comprehend the various conceptual and methodological issues related to meta-analysis and their applicability using R. To facilitate better understanding, each of the commonly used methods is covered with illustration using real data sets. one of the best referrals especially as a metaanalysis reference book to younger researchers/biostatisticians. an important source to acquire desired statistical skills regarding meta-analysis, with a focus on their applications using R and interpretation. Further, it may be equally helpful in scientific understanding of related research articles and their critical appraisal." *ISCB News*, 59, June 2015 "Chen and Peaces book adds to a growing number of resources for practitioners of meta-analysis that include short courses, specialty software, and textbooks devoted to the subject. What distinguishes *Applied Meta-Analysis with R (AMAR)* is its focus on the use of R, the current language of choice for many biostatisticians and students of biostatistics. Chen and Peaces writing style mixes explanatory text with numerous step-by-step programming examples. The examples are taken from real clinical applications, including Dr. Steven Nissens controversial synthesis of rosiglitazone trials (2007). The examples that pepper the text help to demonstrate the usefulness of meta-analysis, while also addressing some of the practical challenges, such as rare event data, that can arise in real applications. ... As the first applied text on meta-analysis in R, practitioners will find *AMAR* a useful though imperfect attempt to fill an important gap in their library." *Journal of Biopharmaceutical Statistics*, 2015 "Various primers on research synthesis have been written in the past decade, but probably none with such a clear emphasis on software application. The authors strive to reduce theory to a minimum, which makes it a self-learning text that is comprehensible for biologists, physicians, etc. who lack an advanced mathematics background. Unlike in many other textbooks, R is not introduced with meaningless toy examples; instead the reader is taken by the hand and shown around some analyses, graphics, and simulations directly relating to meta-analysis. A strength of the book, especially from an applied users point of view, is that the authors do not get lost in technical details. a useful hands-on guide for practitioners who want to familiarize themselves with the fundamentals of meta-analysis and get started without having to plough through theorems and proofs." *Journal of Applied Statistics*, 2014 " especially valuable to medical researchers in universities, industries, or governmental agencies. For beginners who are not familiar with the R system and meta-analysis, this book can also serve as a good guide and reference an outstanding feature of this book is that it presents plenty of concise R codes and corresponding outputs, with clear comments explaining the meaning of the codes. Currently, a great deal of literature has been devoted to meta-analysis, but most of them usually introduce theoretics and carry out the analysis only presenting the results, such as estimated odds ratio and forest plots. This book not only makes readers aware of why the meta-analysis approaches are derived, but also provides excellent practical skills to synthesize different clinical trials. I recommend this book as a nice reference for beginners and

researchers who are interested in meta-analysis." *Journal of the American Statistical Association*, December 2014

**About the Author** Ding-Geng (Din) Chen, Ph.D., is a professor at the University of Rochester Medical Center. Dr. Chen has vast experience in biostatistical research and clinical trial development and methodology. He has authored or co-authored more than 100 journal publications on biostatistical methodologies and applications. He is also the co-author (with Dr. Peace) of *Clinical Trial Methodology and Clinical Trial Data Analysis Using R* and a co-editor (with Drs. Sun and Peace) of *Interval-Censored Time-to-Event Data: Methods and Applications*. He is a member of the American Statistical Association, chair for the STAT section of the American Public Health Association, an associate editor of the *Journal of Statistical Computation and Simulation*, and an editorial board member of several other journals. Karl E. Peace, Ph.D., is the Georgia Cancer Coalition Distinguished Cancer Scholar, senior research scientist, and professor of biostatistics in the Jiann-Ping Hsu College of Public Health at Georgia Southern University. He is also an adjunct professor of biostatistics at the VCU School of Medicine. Dr. Peace is a reviewer or editor of several journals, the founding editor of the *Journal of Biopharmaceutical Statistics*, and a fellow of the American Statistical Association. He has authored or co-authored over 150 articles and 10 books. He has received numerous awards, including the University System of Georgia Board of Regents Alumni Hall of Fame Award, the First Presidents Medal for outstanding contributions to Georgia Southern University, and distinguished meritorious service awards from the American Public Health Association and other organizations. In 2012, the American Statistical Association created the Karl E. Peace Award for Outstanding Statistical Contributions for the Betterment of Society.