

# Book-Reviews | Reseñas

## ANOVA AND MIXED MODELS . A SHORT INTRODUCTION USING R

Lukas Meier (2022)

Chapman & Hall

ISBN-10 036770420X

pp xii+234

ISBN-13 978-0367704209

This book is useful for practitioners and researchers for coping with designing experiments . The more commonly used designs are presented. The prerequisites are having management of probability and statistics. The author introduces the models considering the reader understands the basics of statistical inferences and R coding. R codes are available for all steps and if , additional resources and updates are needed, they are available at <https://stat.ethz.ch/~meier/teaching/book-anova>.

Its contents:

1. **Learning from Data.** 1.1. Cause-Effect Relationships. 1.2. Experimental Studies. 2. Completely Randomized Designs. 2.1. One-Way Analysis of Variance. 2.2. Checking Model Assumptions. 2.3. Nonparametric Approaches. 2.4. Power or "What Sample Size Do I Need?". 2.5. Adjusting for Covariates. 2.6. Appendix. 3. Contrasts and Multiple Testing. 3.1. Contrasts. 3.2. Multiple Testing. 4. Factorial Treatment Structure. 4.1. Introduction. 4.2. Two-Way ANOVA Model. 5. Complete Block Designs. 5.1. Introduction. 5.2. Randomized Complete Block Designs (RCBD). 5.3. Nonparametric Alternatives. 5.4. Outlook: Multiple Block Factors. 6. Random and Mixed Effects Models. 6.1. Random Effects Models. 7. Split-Plot Designs. 7.1. Introduction. 7.2. Properties of Split-Plot Designs. 7.3. A More Complex Example in Detail: Oat Varieties. 8. Incomplete Block Designs. 8.1. Introduction. 8.2. Balanced Incomplete Block Designs (BIBD). 8.3. Analysis of Incomplete Block Designs. 8.4. Outlook. 8.5. Concluding Remarks. Bibliography. Index.

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## APPLIED STATISTICS IN SOCIAL SCIENCES

Emilio Gómez-Déniz and Enrique Calderín-Ojeda (2023)

CRC Press

ISBN 9780367642044

pp x+188

The authors were successful in presenting and developing the intuition behind the various models. Advanced undergraduates, graduate students as well as specialists of the Social Sciences have a good source of applicable models, motivating ideas and illustrations of how statistics applications in the Social Sciences are an aid for analyzing social phenomena. The book assumes that the readers have some information on calculus, linear algebra, and probability. It will be useful for courses on statistics for social scientist as well as for specialists of Computer Science and Operations Research.

J. M. Gonçalvez

Academia de Estudios Informáticos Avanzados