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Titolo	Variations on split plot and split block experiment designs [[electronic resource] /] / Walter T. Federer, Freedom King
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Descrizione fisica	1 online resource (286 p.)
Collana	Wiley series in probability and statistics
Altri autori (Persone)	KingFreedom <1955->
Disciplina	519.5 519.57
Soggetti	Experimental design Blocks (Group theory)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Variations on Split Plot and Split Block Experiment Designs; Contents; Preface; Chapter 1. The standard split plot experiment design; 1.1. Introduction; 1.2. Statistical design; 1.3. Examples of split-plot-designed experiments; 1.4. Analysis of variance; 1.5. F-tests; 1.6. Standard errors for means and differences between means; 1.7. Numerical examples; 1.8. Multiple comparisons of means; 1.9. One replicate of a split plot experiment design and missing observations; 1.10. Nature of experimental variation; 1.11. Repeated measures experiments; 1.12. Precision of contrasts; 1.13. Problems 1.14. ReferencesAppendix 1.1. Example 1.1 code; Appendix 1.2. Example 1.2 code; Chapter 2. Standard split block experiment design; 2.1. Introduction; 2.2. Examples; 2.3. Analysis of variance; 2.4. F-tests; 2.5. Standard errors for contrasts of effects; 2.6. Numerical examples; 2.7. Multiple comparisons; 2.8. One replicate of a split block design; 2.9. Precision; 2.10. Comments; 2.11. Problems; 2.12. References; Appendix 2.1. Example 2.1 code; Appendix 2.2. Example 2.2 code; Appendix 2.3. Problems 2.1 and 2.2 data; Chapter 3. Variations of the split plot experiment design; 3.1. Introduction

3.2. Split split plot experiment design  
 3.3. Split split split plot experiment design; 3.4. Whole plots not in a factorial arrangement; 3.5. Split plot treatments in an incomplete block experiment design within each whole plot; 3.6. Split plot treatments in a row-column arrangement within each whole plot treatment and in different whole plot treatments; 3.7. Whole plots in a systematic arrangement; 3.8. Split plots in a systematic arrangement; 3.9. Characters or responses as split plot treatments; 3.10. Observational or experimental error?  
 3.11. Time as a discrete factor rather than as a continuous factor  
 3.12. Inappropriate model?; 3.13. Complete confounding of some effects and split plot experiment designs; 3.14. Comments; 3.15. Problems; 3.16. References; Appendix 3.1. Table 3.1 code and data; Chapter 4. Variations of the split block experiment design; 4.1. Introduction; 4.2. One set of treatments in a randomized complete block and the other in a Latin square experiment design; 4.3. Both sets of treatments in split block arrangements; 4.4. Split block split block or strip strip block experiment design  
 4.5. One set of treatments in an incomplete block design and the second set in a randomized complete block design  
 4.6. An experiment design split blocked across the entire experiment; 4.7. Confounding in a factorial treatment design and in a split block experiment design; 4.8. Split block experiment design with a control; 4.9. Comments; 4.10. Problems; 4.11. References; Appendix 4.1. Example 4.1 code; Chapter 5. Combinations of SPEDs and SBEDs; 5.1. Introduction; 5.2. Factors A and B in a split block experiment design and factor C in a split plot arrangement to factors A and B  
 5.3. Factor A treatments are the whole plot treatments and factors B and C treatments are in a split block arrangement within each whole plot

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Sommario/riassunto

A complete and up-to-date discussion of optimal split plot and split block designs. Variations on Split Plot and Split Block Experiment Designs provides a comprehensive treatment of the design and analysis of two types of trials that are extremely popular in practice and play an integral part in the screening of applied experimental designs--split plot and split block experiments. Illustrated with numerous examples, this book presents a theoretical background and provides two and three error terms, a thorough review of the recent work in the area of split plot and split blocked experimen

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