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INVOLVING MORE THAN TWO TREATMENTS; 2.7 MULTIFACTOR TWO-COLOR MICROARRAY EXPERIMENTS; 2.7.1 Introduction; 2.7.2 Admissible Designs; 2.7.3 w-Optimal Designs; 2.7.4 e-Efficiency; 2.8 PHASE 2 DESIGNS FOR COMPLEX PHASE 1 DESIGNS; REFERENCES; CHAPTER 3: Spatial Analysis of Agricultural Field Experiments; 3.1 INTRODUCTION; 3.2 METHODS TO ACCOUNT FOR SPATIAL VARIATION; 3.2.1 Design of Experiments; 3.2.2 Spatial Analysis Methods
3.3 A SPATIAL LINEAR MIXED MODEL3.3.1 Estimation, Prediction and Testing; 3.3.2 The Spatial Modeling Process; 3.4 ANALYSIS OF EXAMPLES; 3.4.1 Herbicide Tolerance Trial; 3.4.2 Variety Trial; REFERENCES; CHAPTER 4: Optimal Designs for Generalized Linear Models; 4.1 INTRODUCTION; 4.2 NOTATION AND BASIC CONCEPTS; 4.2.1 Binary Data; 4.2.2 Count Data; 4.2.3 Optimality Criteria; 4.3 TOOLS FOR FINDING LOCALLY OPTIMAL DESIGNS; 4.3.1 Traditional Approaches; 4.3.2 An Analytical Approach; 4.4 GLMs WITH TWO PARAMETERS; 4.5 GLMs WITH MULTIPLE PARAMETERS; 4.5.1 GLMs with Multiple Covariates
4.5.2 GLMs with Group Effects

Sommario/riassunto

Provides timely applications, modifications, and extensions of experimental designs for a variety of disciplines Design and Analysis of Experiments, Volume 3: Special Designs and Applications continues building upon the philosophical foundations of experimental design by providing important, modern applications of experimental design to the many fields that utilize them. The book also presents optimal and efficient designs for practice and covers key topics in current statistical research. Featuring contributions from leading researchers and academics, the book demonstrates