Record Nr.	UNINA9910876988903321
Autore	Box George E. P
Titolo	Response surfaces, mixtures, and ridge analyses / / George E.P. Box, Norman R. Draper
Pubbl/distr/stampa	Hoboken, N.J., : John Wiley, c2007
ISBN	1-282-24228-8 9786613813404 0-470-07276-8 0-470-07275-X
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (873 p.)
Collana	Wiley Series in Probability and Statistics ; ; v.649
Altri autori (Persone)	DraperNorman Richard
Disciplina	519.5/7
Soggetti	Experimental design Response surfaces (Statistics) Mixture distributions (Probability theory) Ridge regression (Statistics)
Lingua di pubblicazione	Inglese
Formata	
Formato	Materiale a stampa
Formato Livello bibliografico	Materiale a stampa Monografia
Livello bibliografico	Monografia

1.

	Intervals and Confidence Regions 3.13. Robust Estimation, Maximum Likelihood, and Least SquaresAppendix 3A. Iteratively Reweighted Least Squares; Appendix 3B. Justification of Least Squares by the Gauss-Markov Theorem; Robustness; Appendix 3C. Matrix Theory; Appendix 3D. Nonlinear Estimation; Appendix 3E. Results Involving V(y); Exercises; 4. Factorial Designs at Two Levels; 4.1. The Value of Factorial Designs; 4.2. Two- Level Factorials; 4.3. A 2(6) Design Used in a Study of Dyestuffs Manufacture; 4.4. Diagnostic Checking of the Fitted Models, 2(6) Dyestuffs Example; 4.5. Response Surface Analysis of the 2(6) Design Data Appendix 4A. Yates' Method for Obtaining the Factorial Effects for a Two-Level DesignAppendix 4B. Normal Plots on Probability Paper; Appendix 4C. Confidence Regions for Contour Planes (see Section 4.5); Exercises; 5. Blocking and Fractionating 2(k) Factorial Designs; 5.1. Blocking the 2(6) Design; 5.2. Fractionating the 2(6) Design; 5.3. Resolution of a 2(k-p) Factorial Design; 5.4. Construction of 2(k-p) Designs of Resolution III and IV; 5.5. Combination of Designs from the Same Family; 5.6. Screening, Using 2(k-p) Designs (Involving Projections to Lower Dimensions) 5.7. Complete Factorials Within Fractional Factorial Design; 5.8. Plackett and Burman Designs for n = 12 to 60 (but not 52); 5.9. Screening, Using Plackett and Burman Designs (Involving Projections to Lower Dimensions); 5.10. Efficient Estimation of Main Effects and Two-Factor Interactions Using Relatively Small Two-Level Design; 5.11. Designs of Posolution V and of Hinber Posolution; 5.12. Application of Fractional
Sommario/riassunto	The authority on building empirical models and the fitting of such surfaces to data-completely updated and revised Revising and updating a volume that represents the essential source on building empirical models, George Box and Norman Draper-renowned authorities in this field-continue to set the standard with the Second Edition of Response Surfaces, Mixtures, and Ridge Analyses, providing timely new techniques, new exercises, and expanded material. A comprehensive introduction to building empirical models, this book presents the general philosophy and computational details of a number o