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Autore	Goos Peter
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experimental designs; 2.3.10 The extraction experiment revisited; 2.3.11 Principles of successful screening: sparsity, hierarchy, and heredity; 2.4 Background reading; 2.4.1 Screening; 2.4.2 Algorithms for finding optimal designs; 2.5 Summary; 3 Adding runs to a screening experiment; 3.1 Key concepts; 3.2 Case: an augmented extraction experiment; 3.2.1 Problem and design; 3.2.2 Data analysis; 3.3 Peek into the black box; 3.3.1 Optimal selection of a follow-up design; 3.3.2 Design construction algorithm; 3.3.3 Foldover designs
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6.3.1 The mixture constraint; 6.3.2 The effect of the mixture constraint on the model; 6.3.3 Commonly used models for data from mixture experiments; 6.3.4 Optimal designs for mixture experiments; 6.3.5 Design construction algorithms for mixture experiments; 6.4 Background reading; 6.5 Summary; 7 A response surface design in blocks; 7.1 Key concepts; 7.2 Case: the pastry dough experiment; 7.2.1 Problem and design; 7.2.2 Data analysis; 7.3 Peek into the black box; 7.3.1 Model; 7.3.2 Generalized least squares estimation; 7.3.3 Estimation of variance components; 7.3.4 Significance tests
7.3.5 Optimal design of blocked experiments

Sommario/riassunto

""This is an engaging and informative book on the modern practice of experimental design. The authors' writing style is entertaining, the consulting dialogs are extremely enjoyable, and the technical material is presented brilliantly but not overwhelmingly. The book is a joy to read. Everyone who practices or teaches DOE should read this book."" - Douglas C. Montgomery, Regents Professor, Department of Industrial Engineering, Arizona State University ""It's been said: 'Design for the experiment, don't experiment for the design.' This book ably demonstrates this notion
