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Titolo	Experimental Design [[electronic resource]] : With Application in Management, Engineering, and the Sciences. // by Paul D. Berger, Robert E. Maurer, Giovana B. Celli
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ISBN	3-319-64583-8
Edizione	[2nd ed. 2018.]
Descrizione fisica	1 online resource (XVIII, 639 p. 159 illus., 150 illus. in color.)
Disciplina	519.57
Soggetti	Statistics Statistical Theory and Methods Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	1. Introduction to experimental design -- 2. One-factor designs and the analysis of variance -- 3. Some further considerations on one-factor design and ANOVA -- 4. Multiple-comparison testing -- 5. Orthogonality, orthogonal decomposition, and their role in modern experimental design -- 6 -- Two-factor cross-classification designs -- 7. Nested, or hierarchical, designs -- 8. Designs with three or more factors: Latin-square and related designs -- 9. Two-level factorial designs -- 10. Confounding/blocking in 2k designs -- 11. Two-level fractional-factorial designs -- 12. Designs with factors at three levels -- 13. Introduction to Taguchi methods -- 14. Simple regression -- 15. Multiple and step-wise regression -- 16. Introduction to Response-Surface Methodology -- 17. Introduction to mixture design and triangular surfaces -- 18. Literature on experimental design and discussion.
Sommario/riassunto	This text introduces and provides instruction on the design and analysis of experiments for a broad audience. Formed by decades of teaching, consulting, and industrial experience in the Design of Experiments field, this new edition contains updated examples, exercises, and situations covering the science and engineering practice.

This text minimizes the amount of mathematical detail, while still doing full justice to the mathematical rigor of the presentation and the precision of statements, making the text accessible for those who have little experience with design of experiments and who need some practical advice on using such designs to solve day-to-day problems. Additionally, an intuitive understanding of the principles is always emphasized, with helpful hints throughout.
