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Descrizione fisica	1 online resource (XII, 426 p. 511 illus., 65 illus. in color.)
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Lingua di pubblicazione	Inglese
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Nota di contenuto	Preface -- Continuous Outcome Regressions -- Dichotomous Outcome Regressions -- Confirmative Regressions -- Dichotomous Regressions Other than Logistic and Cox -- Polytomous Outcome Regressions -- Time to Event Regressions other than Traditional Cox -- Analysis of Variance (ANOVA) -- Repeated Outcome Regressions -- Methodologies for Better Fit of Categorical Predictors -- Laplace Regressions, Multi- instead of Mono-Exponential Models -- Regressions For Making Extrapolations -- Standardized Regression Coefficients -- Multivariate Analysis of Variance and Canonical Regression -- More on Poisson Regressions -- Regression Trend Testing -- Optimal Scaling and Automatic Linear Regression -- Spline Regressions -- More on Nonlinear Regressions -- Special Forms of Continuous Outcome Regressions -- Regressions for Quantitative Diagnostic Testing -- Regressions, a Panacee or at Least a Widespread Help for Data Analyses -- Regression Trees -- Regressions with Latent Variables -- Partial Correlations -- Functional Data Analysis I -- Functional Data Analysis II -- Index.
Sommario/riassunto	This edition is a pretty complete textbook and tutorial for medical and health care students, as well as a recollection/update bench, and help desk for professionals. Novel approaches already applied in published clinical research will be addressed: matrix analyses, alpha spending,

gate keeping, kriging, interval censored regressions, causality regressions, canonical regressions, quasi-likelihood regressions, novel non-parametric regressions. Each chapter can be studied as a stand-alone, and covers one field in the fast growing world of regression analyses. The authors, as professors in statistics and machine learning at European universities, are worried, that their students find regression-analyses harder than any other methodology in statistics. This is serious, because almost all of the novel methodologies in current data mining and data analysis include elements of regression-analysis. It is the main incentive for writing this 28 chapter edition, consistent of - 28 major fields of regression analysis, - their condensed maths, - their applications in medical and health research as published so far, - step by step analyses for self-assessment, - conclusion and reference sections. Traditional regression analysis is adequate for epidemiology, but lacks the precision required for clinical investigations. However, in the past two decades modern regression methods have proven to be much more precise. And so it is time, that a book described regression analyses for clinicians. The current edition is the first to do so. It is written for a non-mathematical readership. Self-assessment data-files are provided through Springer' s "Extras Online".
