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Nota di contenuto	Preface -- Part I: LOSS MODELS.-1. Insurance Risk Classification.- Exponential Dispersion (ED) Distributions.-3.-Maximum Likelihood Estimation.-Part II LINEAR MODELS.-4. Generalized Linear Models (GLMs) -- 5.-Over-dispersion, credibility adjustments, mixed models, and regularization.-Part III ADDITIVE MODELS -- 6 Generalized Additive Models (GAMs) -- 7. Beyond Mean Modeling: Double GLMs and GAMs for Location, Scale and Shape (GAMLSS) -- Part IV SPECIAL TOPICS -- 8. Some Generalized Non-Linear Models (GNMs) -- 9 Extreme Value Models -- References.
Sommario/riassunto	This book summarizes the state of the art in generalized linear models (GLMs) and their various extensions: GAMs, mixed models and credibility, and some nonlinear variants (GNMs). In order to deal with tail events, analytical tools from Extreme Value Theory are presented. Going beyond mean modeling, it considers volatility modeling (double GLMs) and the general modeling of location, scale and shape parameters (GAMLSS). Actuaries need these advanced analytical tools to turn the massive data sets now at their disposal into opportunities. The exposition alternates between methodological aspects and case

studies, providing numerical illustrations using the R statistical software. The technical prerequisites are kept at a reasonable level in order to reach a broad readership. This is the first of three volumes entitled *Effective Statistical Learning Methods for Actuaries*. Written by actuaries for actuaries, this series offers a comprehensive overview of insurancedata analytics with applications to P&C, life and health insurance. Although closely related to the other two volumes, this volume can be read independently.

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