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Nota di contenuto	Weibull Models; Contents; Preface; PART A OVERVIEW; Chapter 1 Overview; 1.1 Introduction; 1.2 Illustrative Problems; 1.3 Empirical Modeling Methodology; 1.4 Weibull Models; 1.5 Weibull Model Selection; 1.6 Applications of Weibull Models; 1.7 Outline of the Book; 1.8 Notes; Exercises; Chapter 2 Taxonomy for Weibull Models; 2.1 Introduction; 2.2 Taxonomy for Weibull Models; 2.3 Type I Models: Transformation of Weibull Variable; 2.4 Type II Models: Modification/Generalization of Weibull Distribution; 2.5 Type III Models: Models Involving Two or More Distributions 2.6 Type IV Models: Weibull Models with Varying Parameters 2.7 Type V Models: Discrete Weibull Models; 2.8 Type VI Models: Multivariate Weibull Models; 2.9 Type VII Models: Stochastic Point Process Models; Exercises; PART B BASIC WEIBULL MODEL; Chapter 3 Model Analysis; 3.1 Introduction; 3.2 Basic Concepts; 3.3 Standard Weibull Model; 3.4 Three-Parameter Weibull Model; 3.5 Notes; Exercises; Chapter 4 Parameter Estimation; 4.1 Introduction; 4.2 Data Types; 4.3 Estimation: An Overview; 4.4 Estimation Methods and Estimators; 4.5 Two-Parameter Weibull Model: Graphical Methods

4.6 Standard Weibull Model: Statistical Methods; 4.7 Three-Parameter Weibull Model; Exercises; Chapter 5 Model Selection and Validation; 5.1 Introduction; 5.2 Graphical Methods; 5.3 Goodness-of-Fit Tests; 5.4 Model Discrimination; 5.5 Model Validation; 5.6 Two-Parameter Weibull Model; 5.7 Three-Parameter Weibull Model; Exercises; PART C TYPES I AND II MODELS; Chapter 6 Type I Weibull Models; 6.1 Introduction; 6.2 Model I(a)-3: Reflected Weibull Distribution; 6.3 Model I(a)-4: Double Weibull Distribution; 6.4 Model I(b)-1: Power Law Transformation; 6.5 Model I(b)-2: Log Weibull Transformation; 6.6 Model I(b)-3: Inverse Weibull Distribution; Exercises; Chapter 7 Type II Weibull Models; 7.1 Introduction; 7.2 Model II(a)-1: Pseudo-Weibull Distribution; 7.3 Model II(a)-2: Stacy-Mihram Model; 7.4 Model II(b)-1: Extended Weibull Distribution; 7.5 Model II(b)-2: Exponentiated Weibull Distribution; 7.6 Model II(b)-3: Modified Weibull Distribution; 7.7 Models II(b)-4-6: Generalized Weibull Family; 7.8 Model II(b)-7: Three-Parameter Generalized Gamma; 7.9 Model II(b)-8: Extended Generalized Gamma; 7.10 Models II(b)-9-10: Four- and Five-Parameter Weibulls; 7.11 Model II(b)-11: Truncated Weibull Distribution; 7.12 Model II(b)-12: Slymen-Lachenbruch Distributions; 7.13 Model II(b)-13: Weibull Extension; Exercises; PART D TYPE III MODELS; Chapter 8 Type III(a) Weibull Models; 8.1 Introduction; 8.2 Model III(a)-1: Weibull Mixture Model; 8.3 Model III(a)-2: Inverse Weibull Mixture Model; 8.4 Model III(a)-3: Hybrid Weibull Mixture Models; 8.5 Notes; Exercises; Chapter 9 Type III(b) Weibull Models; 9.1 Introduction; 9.2 Model III(b)-1: Weibull Competing Risk Model; 9.3 Model III(b)-2: Inverse Weibull Competing Risk Model; 9.4 Model III(b)-3: Hybrid Weibull Competing Risk Model

Sommario/riassunto

A comprehensive perspective on Weibull models The literature on Weibull models is vast, disjointed, and scattered across many different journals. Weibull Models is a comprehensive guide that integrates all the different facets of Weibull models in a single volume. This book will be of great help to practitioners in reliability and other disciplines in the context of modeling data sets using Weibull models. For researchers interested in these modeling techniques, exercises at the end of each chapter define potential topics for future research. Organized into seven distinct parts, Weibull