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Nota di contenuto	Statistical Applications for Environmental Analysis and Risk Assessment; Contents; Preface; Acknowledgements; 1. Introduction; 1.1 Introduction and Overview; 1.2 The Aim of the Book: Get Involved!; 1.3 The Approach and Style: Clarity, Clarity, Clarity; Part I: Basic Statistical Measures and Concepts; 2. Introduction to Software Packages used in this Book; 2.1 R; 2.1.1 Helpful R Tips; 2.1.2 Disadvantages of R; 2.2 ProUCL; 2.2.1 Helpful ProUCL Tips; 2.2.2 Potential Deficiencies of ProUCL; 2.3 Visual Sample Plan; 2.4 DATAPLOT; 2.4.1 Helpful Tips for Running DATAPLOT in Batch Mode 2.5 Kendall-Thiel Robust Line2.6 Minitab®; 2.7 Microsoft Excel; 3. Laboratory Detection Limits, Non-Detects and Data Analysis; 3.1 Introduction and Overview; 3.2 Types of Laboratory Data Detection Limits; 3.3 Problems with Nondetects in Statistical Data Samples; 3.4 Options for Addressing Nondetects in Data Analysis; 3.4.1 Kaplan-Meier Estimation; 3.4.2 Robust Regression on Order Statistics; 3.4.3 Maximum Likelihood Estimation; 4. Data Sample, Data Population and Data Distribution; 4.1 Introduction and Overview; 4.2 Data Sample Versus Data Population or Universe 4.3 The Concept of a Distribution4.3.1 The Concept of a Probability Distribution Function; 4.3.2 Cumulative Probability Distribution and Empirical Cumulative Distribution Functions; 4.4 Types of Distributions; 4.4.1 Normal Distribution; 4.4.1.1 Goodness-of-Fit (GOF) Tests for the

Normal Distribution; 4.4.1.2 Central Limit Theorem; 4.4.2 Lognormal, Gamma, and Other Continuous Distributions; 4.4.2.1 Gamma Distribution; 4.4.2.2 Logistic Distribution; 4.4.2.3 Other Continuous Distributions; 4.4.3 Distributions Used in Inferential Statistics (Student's t, Chi-Square, F)
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Sommario/riassunto

Statistical Applications for Environmental Analysis and Risk Assessment guides readers through real-world situations and the best statistical methods used to determine the nature and extent of the problem, evaluate the potential human health and ecological risks, and design and implement remedial systems as necessary. Featuring numerous worked examples using actual data and "ready-made" software scripts, Statistical Applications for Environmental Analysis and Risk Assessment also includes: Descriptions of basic statistical concepts and principles in an informal style
