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Titolo	The Significance Test Controversy Revisited : The Fiducial Bayesian Alternative / / by Bruno Lecoutre, Jacques Poitevineau
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Nota di contenuto	Introduction -- Preamble - Frequentist and Bayesian Inference -- The Fisher, Neyman-Pearson and Jeffreys Views of Statistical Tests -- GHOST: An Officially Recommended Practice -- The Significance Test Controversy Revisited -- Reporting Effect Sizes: The New Star System -- Reporting Confidence Intervals: A Paradoxical Situation -- Basic Fiducial Bayesian Procedures for Inference About Means -- Generalizations and Methodological Considerations for ANOVA -- Conclusion -- Index.
Sommario/riassunto	This book explains the misuses and abuses of Null Hypothesis Significance Tests, which are reconsidered in light of Jeffreys' Bayesian concept of the role of statistical inference, in experimental investigations. Minimizing the technical aspects, the studies focuses mainly on methodological contributions. The first part of the book gives an overview of the major approaches to statistical testing and an enlightening discussion of the philosophies of Fisher, Neyman-Pearson and Jeffrey. The conceptual and methodological implications of current practices of reporting effect sizes and confidence intervals are also

examined and challenged. This sheds new light on the "significance testing controversy" and provides an appropriate Bayesian framework for a comprehensive approach to the analysis and interpretation of experimental data. The second part of the book provides concrete Bayesian routine procedures that bypass common misuses of significance testing and are readilyapplicable in a wide range of real applications. This approach addresses the need for objective reporting of experimental data, that is acceptable to the scientific community. This is emphasized by the name fiducial (from the Latin fiducia = confidence). The fiducial Bayesian procedures provide the reader with a real opportunity to think sensibly about problems of statistical inference. This book prepares students and researchers to critically read statistical analyses reported in the literature and equips them with an appropriate alternative to the use of significance testing. .