

CONTENTS

Preface	ix
Acknowledgments	xiii
Notation	xv
A Suggestion for the Practical Reader	xvii

Part I. Elementary Statistical Theory

1. Introduction	3
2. Testing of Hypotheses: Theoretical Aspects	19
3. Estimation: Theoretical Aspects	40
4. Transformations	70

Part II. The Statistics of the Gaussian ("Normal") Distribution

5. Hypothesis Testing: Applications	107
6. Estimation on Gaussian Data	126
7. Analysis of Variance	137
8. Simple Regression Analysis	175
9. Polynomial and Multiple Regression	200
10. Correlation	230
11. Discrimination and Decision	245

Part III. Categorical Data

12. The Binomial Variate	275
13. The Multinomial Distribution: Contingency Tables	295
14. The Poisson Distribution	310

Part IV. Methods Not Involving Explicit Distributions

15. Nonparametric Methods	329
16. Survivorship	352
17. Makeshift	375

Comments on the Problems 403

Appendixes

1. Matrix Algebra 453

2. Tables of Standard Distribution Functions 493

3. Unbiased Estimators of Moments from a Sample of Size n 508

Glossary 509

References 519

Index 527