

Contents

Formulas Useful for Linear Regression Analysis and Related Matrix Theory ..	1
1 The model matrix & other preliminaries	1
2 Fitted values and residuals	8
3 Regression coefficients	10
4 Decompositions of sums of squares	15
5 Distributions	19
6 Best linear predictor	27
7 Testing hypotheses	33
8 Regression diagnostics	39
9 BLUE: Some preliminaries	44
10 Best linear unbiased estimator	48
11 The relative efficiency of OLSE	58
12 Linear sufficiency and admissibility	63
13 Best linear unbiased predictor	65
14 Mixed model	68
15 Multivariate linear model	72
16 Principal components, discriminant analysis, factor analysis	74
17 Canonical correlations	76
18 Column space properties and rank rules	78
19 Inverse of a matrix	82
20 Generalized inverses	86
21 Projectors	91
22 Eigenvalues	96
23 Singular value decomposition & other matrix decompositions	105
24 Löwner ordering	109
25 Inequalities	112
26 Kronecker product, some matrix derivatives	115
Index	117