

# Contents

<b>Introduction</b>	1
<b>Chapter 1: Pseudo-true values</b>	7
1. Introduction	7
2. Pseudo-true values	8
3. Extension to conditional distributions	12
4. Pseudo-true values of location and scale parameters	14
5. Examples	18
6. Conclusion	30
<b>Chapter 2: Encompassing</b>	31
1. Introduction	31
2. The data generating process and empirical models	33
3. Definition of encompassing	37
4. Properties of the encompassing relation	40
5. Encompassing and parsimony as a model reduction device	45
6. Examples	47
7. Conclusion	52
<b>Chapter 3: Testing the encompassing hypothesis</b>	53
1. Introduction	53
2. Encompassing and other statistical hypotheses	55
3. The encompassing hypothesis in terms of almost sure limits	59
3.1. Basic convergence results	59
3.2. Definition of the basic statistics	66
4. Limit distributions of the basic statistics	70
4.1. Asymptotic normality: preliminary results	70
4.2. Asymptotic normality: further results	75
4.3. Asymptotic equivalences	83
5. Limit distributions of quadratic forms	84
6. Encompassing tests	90

7. Nested models and implicit form formulation	94
7.1. Nested models	94
7.2. Implicit form formulation	97
8. Conclusion	103
<b>Chapter 4: Encompassing tests for the linear model</b>	<b>105</b>
1. Introduction	105
2. The framework	106
3. Pseudo-true values and other limits	109
3.1. Pseudo-true values and the encompassing hypothesis	110
3.2. Pseudo-true disturbances	113
3.3. Other equivalents of the encompassing hypothesis	114
4. Limit distributions	116
4.1. Preliminaries	116
4.2. Limit distribution of the Wald vector	120
4.3. Limit distribution of the score vector	121
4.4. Limit distribution of the modified likelihood ratio	122
4.5. Special cases	123
5. Pseudo-ML estimators and basic statistics	125
5.1. Pseudo-ML estimators	125
5.2. Wald and score vectors and the modified likelihood ratio	127
6. Encompassing tests	128
6.1. Covariance matrix estimation	128
6.2. Encompassing test statistics and critical regions	130
6.3. Asymptotic equivalences	131
6.4. Standard non-nested test statistics and critical values	135
7. Conclusion	136
<b>Conclusion</b>	<b>139</b>
<b>Appendix A</b>	<b>143</b>
<b>Appendix B</b>	<b>147</b>
<b>References</b>	<b>151</b>
<b>Author index</b>	<b>157</b>
<b>Subject index</b>	<b>159</b>