



# Contents

Preface . . . . .	v
Acknowledgements . . . . .	vii
1 Introduction . . . . .	1
2 Methods of Computation . . . . .	3
3 Methods of Interpolation in the Tables . . . . .	4
4 Some Non-standard Applications . . . . .	19

## TABLES

Table 1 Upper percentage points of the $F$ -distribution for fractional degrees of freedom . . . . .	36
( $v_1 = 0\cdot1 (0\cdot1) 1 (0\cdot2) 2 (0\cdot5) 5 (1) 16, 18, 20, 24, 30, 40, 60, 120, \infty;$ $v_2 = 0\cdot1 (0\cdot1) 3 (0\cdot2) 7 (0\cdot5) 11 (1) 40, 60, 120, \infty$ )	
Table 2 Upper percentage points of the $t$ -distribution for fractional degrees of freedom . . . . .	196
( $n = 0\cdot1 (0\cdot1) 3 (0\cdot2) 7 (0\cdot5) 11 (1) 40, 60, 120, \infty$ )	
Table 3 Lower percentage points of the $\chi^2$ -distribution for fractional degrees of freedom . . . . .	200
( $v = 0\cdot1 (0\cdot1) 3 (0\cdot2) 7 (0\cdot5) 11 (1) 30 (5) 60 (10) 120$ )	
Table 4 Upper percentage points $X_\alpha$ of the normal distribution and the corresponding parameter $\lambda$ in Carter's approximation . . . . .	209
Table 5 Five-point Lagrangian coefficients for interpolation between tabulated percentage points . . . . .	210
Table 6 The gamma function . . . . .	213
( $\Gamma(1 + \frac{1}{2}x)$ and $\log_{10}\Gamma(1 + \frac{1}{2}x)$ for $x = 0 (0\cdot01) 2$ )	

## ALGORITHMS

Introduction . . . . .	217
List of Procedures . . . . .	217

## CONTENTS

<b>Accuracy</b>	218
<b>Machine Dependency</b>	219
<b>Failure Indicators</b>	221
<b>Description of Individual Algorithms</b>	223
<b>Listings of Algorithms</b>	235
 <b>References</b>	255

