

A Computer Illustrated Text

**FOURIER SERIES
AND
TRANSFORMS**

R D Harding

University of Cambridge

Adam Hilger Ltd, Bristol and Boston

> Contents

Preface	vii
Introduction	1
Part 1 Sampling and Resolution	3
Part 2 Periodic Functions, Harmonics and Fourier Series	7
Part 3 Fourier Transforms	22
Appendix 1 The FFT Algorithm	46
Appendix 2 Proof of the DFT Inverse Relations	48
Appendix 3 Program Outlines	50
Program User's Notes Apple Pascal Version	64
Program User's Notes BBC Basic Version	71
Index	75