# List of Contents

The  contains two categories of routines which can be called by users. They are listed separately in the two sections below.

**Fully Documented Routines**

87 routines, for each of which an individual routine document is provided. These are regarded as the primary contents of the .

**Fundamental Support Routines**

15 comparatively simple routines which are documented in compact form in the relevant Chapter Introductions (X01, X02).

**Note:** all the routines in the above categories have either six-character names ending in 'F' or seven-character names ending in 'FP'.

# Fully Documented Routines

## Chapter A00: Library Identification



## Chapter D01: Quadrature



## Chapter E04: Minimising or Maximising a Function



## Chapter F01: Matrix Operations and Distribution



## Chapter F02: Eigenvalues and Eigenvectors

## Chapter F04: Simultaneous Linear Equations



## Chapter F07: Linear Equations (ScaLAPACK)



## Chapter F08: Least-squares Problems (ScaLAPACK)

## Chapter F11: Sparse Linear Algebra



## Chapter G05: Random Number Generators

## Chapter X04: Input/Output Utilities

## Chapter Z01: Library Utilities

# Fundamental Support Routines

## Chapter X01: Mathematical Constants



## Chapter X02: Machine Constants