# NAG Library Routine Document

# F06TFF

**Note:** before using this routine, please read the Users' Note for your implementation to check the interpretation of ***bold italicised*** terms and other implementation-dependent details.

## 1 Purpose

F06TFF performs the matrix-copy operation

$$B \leftarrow A$$

where $A$ and $B$ are $m$ by $n$ complex general or trapezoidal matrices.

## 2 Specification

```
SUBROUTINE F06TFF (MATRIX, M, N, A, LDA, B, LDB)
INTEGER                 M, N, LDA, LDB
COMPLEX (KIND=nag_wp) A(LDA,*), B(LDB,*)
CHARACTER(1)            MATRIX
```

## 3 Description

None.

## 4 References

None.

## 5 Arguments

1: MATRIX – CHARACTER(1) *Input*

*On entry*: the matrix type.

MATRIX = 'G'
General matrix.

MATRIX = 'U'
Upper trapezoidal matrix (upper triangular if $m = n$).

MATRIX = 'L'
Lower trapezoidal matrix (lower triangular if $m = n$).

*Constraint*: MATRIX = 'G', 'U' or 'L'.

2: M – INTEGER *Input*

*On entry*: $m$, the number of rows of the matrices $A$ and $B$.

*Constraint*: M $\geq 0$.

3: N – INTEGER *Input*

*On entry*: $n$, the number of columns of the matrices $A$ and $B$.

*Constraint*: N $\geq 0$.

4: A(LDA, $*$) – COMPLEX (KIND=nag_wp) array *Input*

**Note**: the second dimension of the array A must be at least N.

*On entry*: the $m$ by $n$ general or trapezoidal matrix $A$.

If MATRIX = 'U', $A$ is upper trapezoidal and the elements of the array below the diagonal are not referenced.

If MATRIX = 'L', $A$ is lower trapezoidal and the elements of the array above the diagonal are not referenced.

5: LDA – INTEGER *Input*

*On entry*: the first dimension of the array A as declared in the (sub)program from which F06TFF is called.

*Constraint*: LDA $\geq \max(1, \mathrm{M})$.

6: B(LDB, $*$) – COMPLEX (KIND=nag_wp) array *Output*

**Note**: the second dimension of the array B must be at least N.

*On exit*: the $m$ by $n$ general or trapezoidal matrix $B$.

If MATRIX = 'U', $B$ is upper trapezoidal and the elements of the array below the diagonal are not referenced.

If MATRIX = 'L', $B$ is lower trapezoidal and the elements of the array above the diagonal are not referenced.

7: LDB – INTEGER *Input*

*On entry*: the first dimension of the array B as declared in the (sub)program from which F06TFF is called.

*Constraint*: LDB $\geq \max(1, \mathrm{M})$.

## 6 Error Indicators and Warnings

None.

## 7 Accuracy

Not applicable.

## 8 Parallelism and Performance

F06TFF is not threaded in any implementation.

## 9 Further Comments

None.

## 10 Example

None.