1 SUMMARY

This subroutine evaluates an approximation to

$$\text{ERF(X)} \quad = \quad \frac{2}{\sqrt{\pi}} \int_0^x e^{-t^2} \, dt$$

ATTRIBUTES — **Version:** 1.0.0. **Types:** `FC08B`; `FC08BD`. **Original date:** June 1979. **Origin:** S.Marlow.

2 HOW TO USE THE PACKAGE

2.1 The Argument List

The single precision version

        CALL FC08B(X,ERF)

The double precision version

        CALL FC08BD(X,ERF)

X   is a REAL (DOUBLE PRECISION in the D version) variable which must be set by the user to the value of the argument x. It is not altered by the subroutine. Restrictions: $0 \le \text{X} < \infty$.

ERF   is a REAL (DOUBLE PRECISION in the D version) variable which is set by the subroutine to the computed value of erfc(x).

3 GENERAL INFORMATION

Use of common: none.

Workspace: none.

Other routines called directly: none.

Input/output: none.

Accuracy: 12 figures.

4 METHOD

The approximation to the function is given in National Physical Laboratory Mathematical Tables, volume 5, Chebyshev series for mathematical functions (HMSO 1962) by C.W.Clenshaw.