

# Lecture 8 - Error function

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## 1 Error function

The errorfunction is defined as equation (1) and an example is plotted in Figure 1 from  $x = -3$  to  $x = 3$  in steps of 0.05 with the use of the programming language C.

$$\begin{aligned}\operatorname{erf}(x) &= \frac{1}{\sqrt{\pi}} \int_{-x}^x e^{-t^2} dt \\ &= \frac{2}{\sqrt{\pi}} \int_0^x e^{-t^2} dt\end{aligned}\tag{1}$$

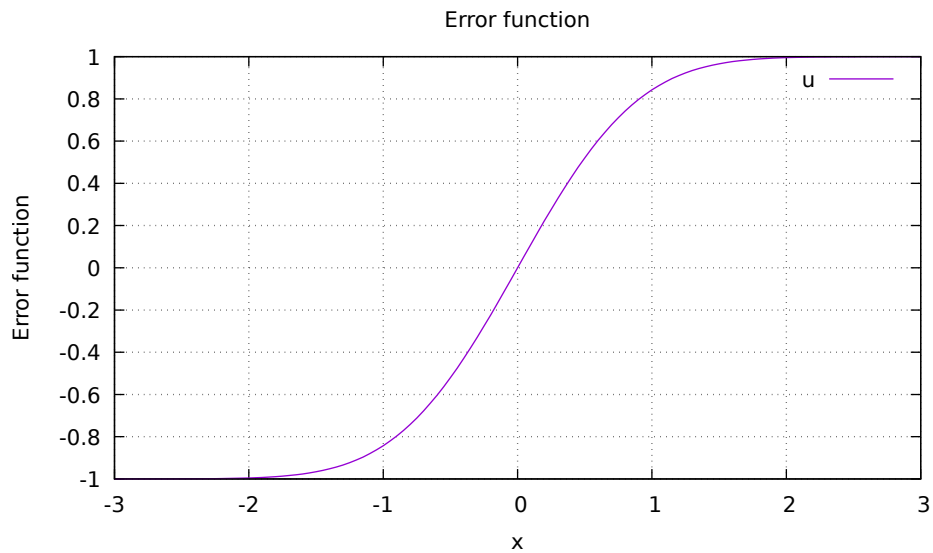


Figure 1: Error function plotted from  $x = -3$  to  $x = 3$  in steps of 0.05 by using equation (1) in the programming language C.