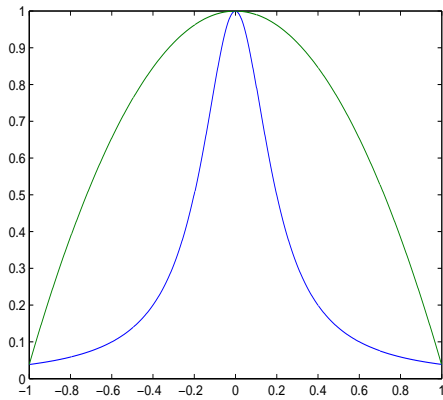
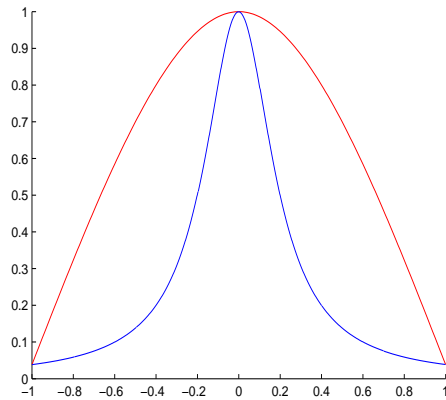


Example of Runge

$n=2$, i.e., $x_0 = -1$, $x_1 = 0$, and $x_2 = 1$

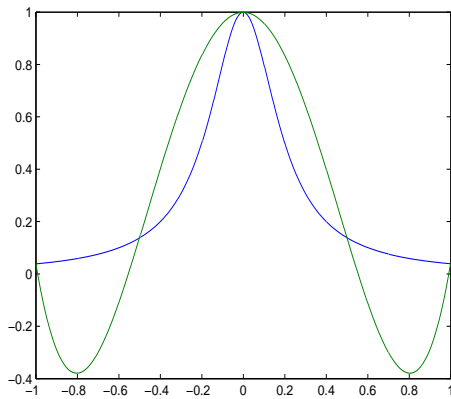


polynomial interpolation

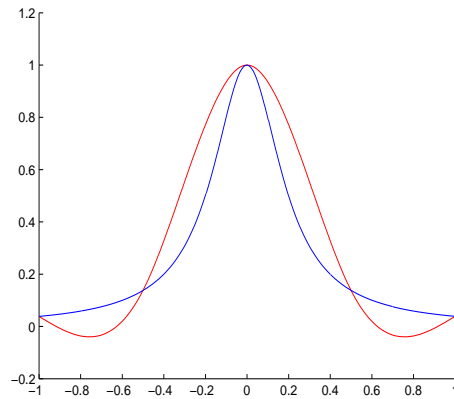


cubic spline interpolation

$n=4$, i.e., $x_0 = -1$, $x_1 = -0.5$, $x_2 = 0$, $x_3 = 0.5$, and $x_4 = 1$



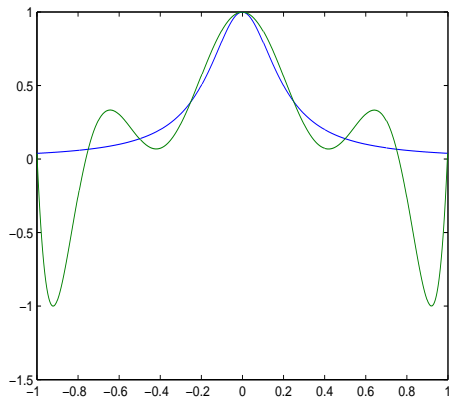
polynomial interpolation



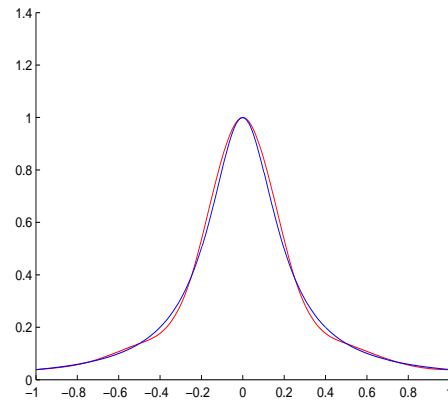
cubic spline interpolation

Example of Runge

$n=8$, i.e., $x_0 = -1, x_1 = -0.75, x_2 = -0.5, x_3 = -0.25, x_4 = 0,$
 $x_5 = 0.25, x_6 = 0.5, x_7 = 0.75,$ and $x_8 = 1$

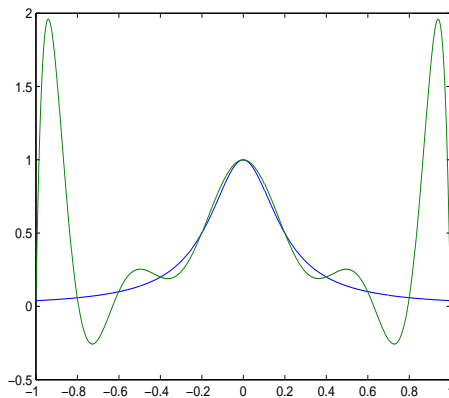


polynomial interpolation

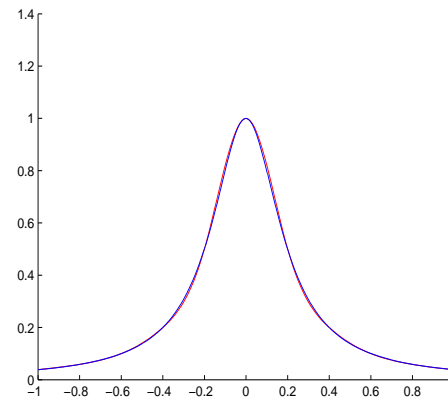


cubic spline interpolation

$n=10$, i.e., $x_0 = -1, x_1 = -0.8, x_2 = -0.6, x_3 = -0.4, x_4 = -0.2, x_5 = 0,$
 $x_6 = 0.2, x_7 = 0.4, x_8 = 0.6, x_9 = 0.8$ and $x_{10} = 1$



polynomial interpolation



cubic spline interpolation