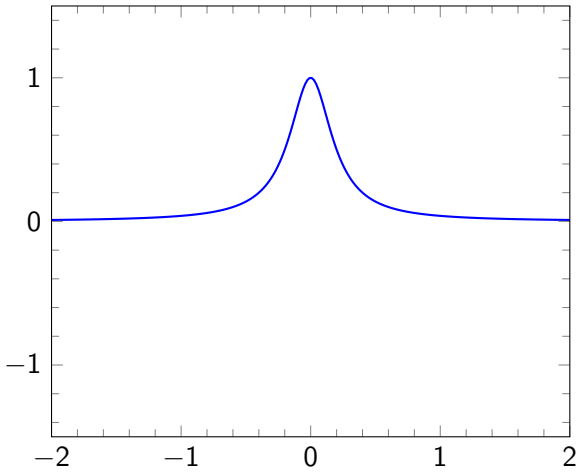
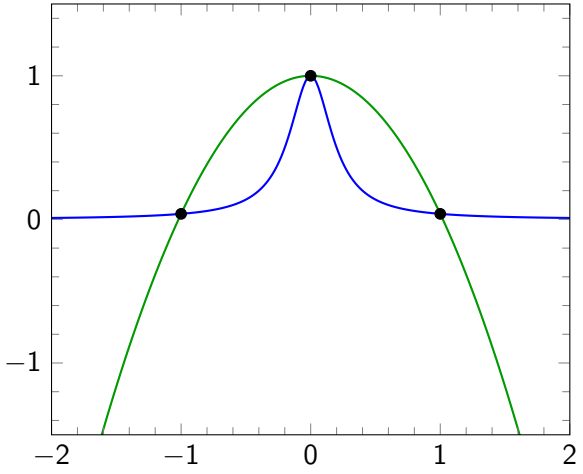
Runges fenomen



$$f(x) = \frac{1}{1 + 25x^2}$$

Runges fenomen

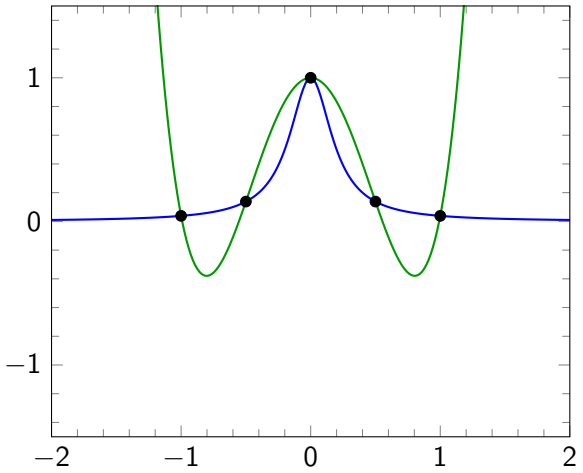


$$f(x) = \frac{1}{1 + 25x^2}$$

Interpolationspunkter $\in [-1, 1]$

3 ekvidistanta $\Rightarrow$ grad 2

Runges fenomen

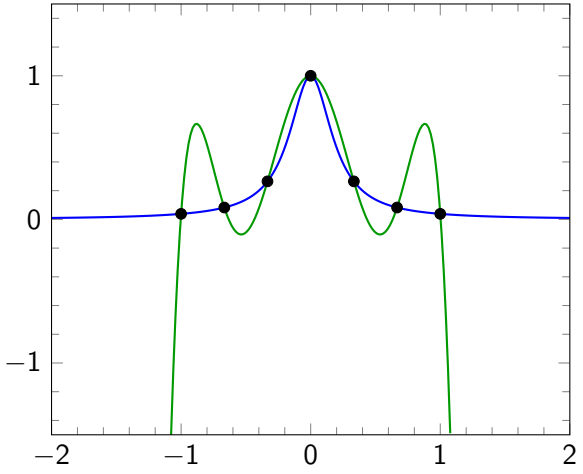


$$f(x) = \frac{1}{1 + 25x^2}$$

Interpolationspunkter $\in [-1, 1]$

5 ekvidistanta $\Rightarrow$ grad 4

Runges fenomen

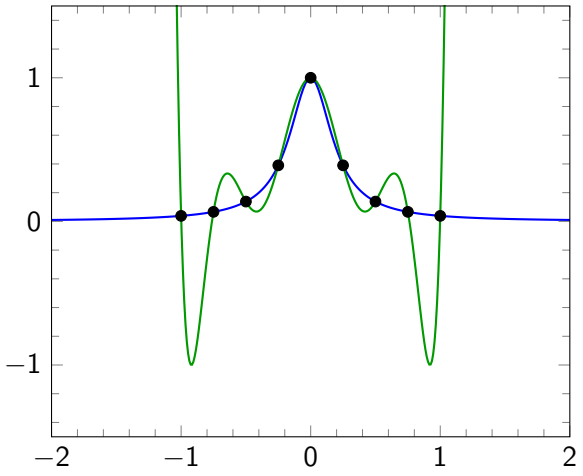


$$f(x) = \frac{1}{1 + 25x^2}$$

Interpolationspunkter $\in [-1, 1]$

7 ekvidistanta $\Rightarrow$ grad 6

Runges fenomen

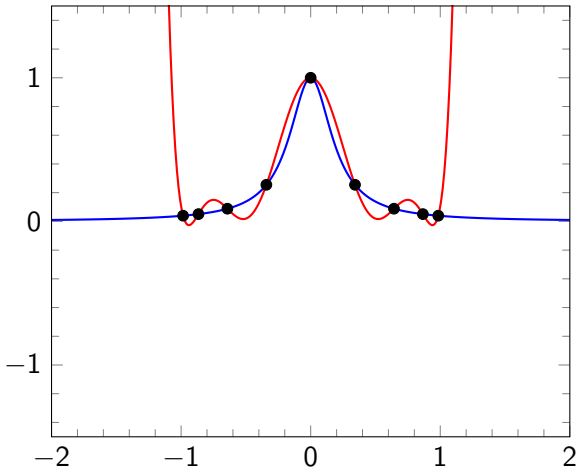


$$f(x) = \frac{1}{1 + 25x^2}$$

Interpolationspunkter $\in [-1, 1]$

9 ekvidistanta $\Rightarrow$ grad 8

Runges fenomen



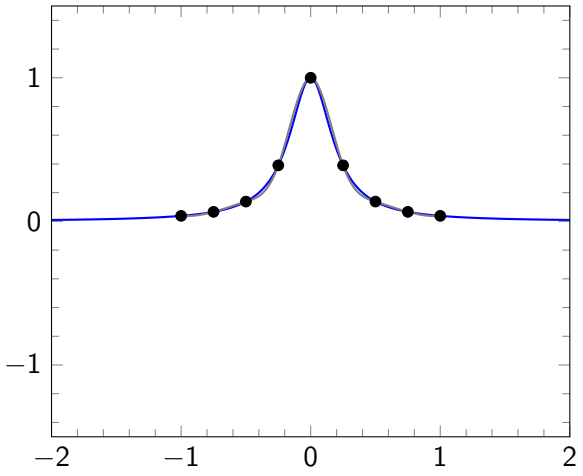
$$f(x) = \frac{1}{1 + 25x^2}$$

Interpolationspunkter $\in [-1, 1]$

9 punkter:

$$\cos\left(\frac{(2k-1)\pi}{18}\right), \quad k = 1, \ldots, 9$$

Runges fenomen



$$f(x) = \frac{1}{1 + 25x^2}$$

Interpolationspunkter $\in [-1, 1]$

9 ekvidistanta

Kubisk spline