## Ultimate TikZ Figures for Publications

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### 1 Line Plots

Here is an example of a standard line plot with a legend.

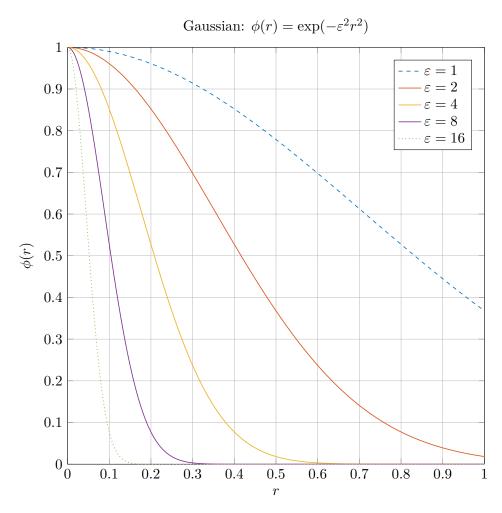
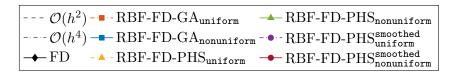


Figure 1: Examples of GAs with different shape parameter values and PHSs of different degrees.

#### 1.1 Logarithmic Line Plots

This is an example combining two logarithmic line plots with different mark symbols.



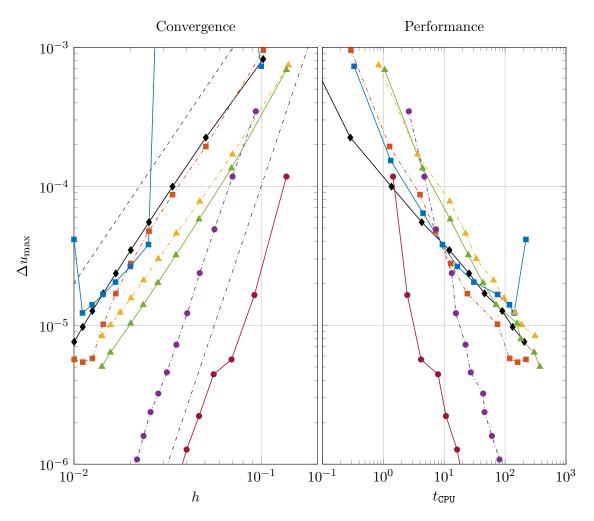


Figure 2: Convergence and computational performance.

### 1.2 Custom Ticks

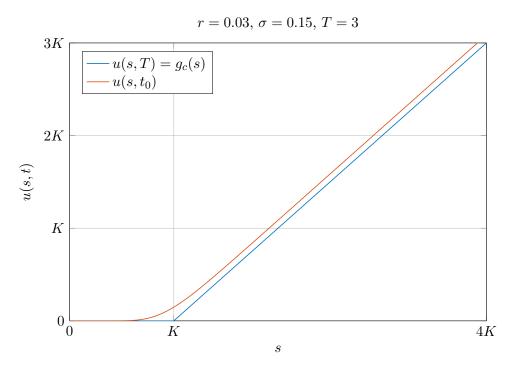


Figure 3: Examples of GAs with different shape parameter values and PHSs of different degrees.

### 2 Scatter Plots

Here is an example of a scatter plot.

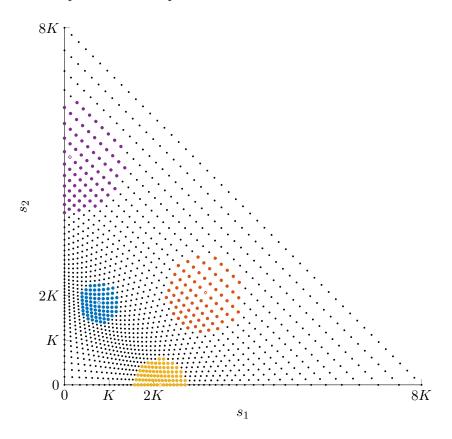


Figure 4: A node layout.

#### 2.1 Different Dimensions

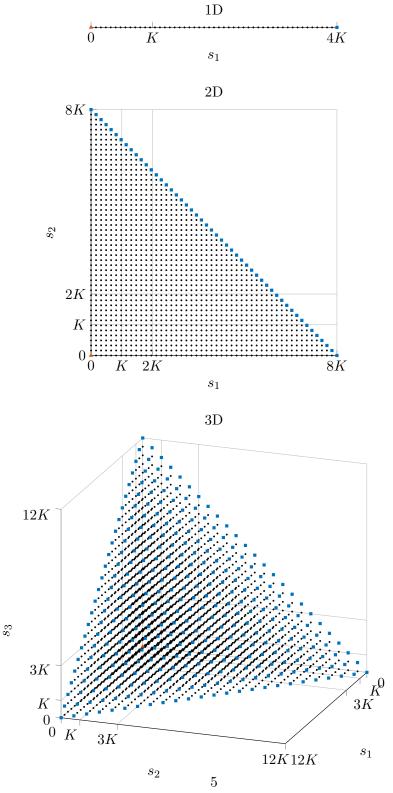


Figure 5: Equidistant Cartesian grid based node layouts for pricing options with a different number of underlying assets. The close-field boundary conditions are enforced in the blue triangle node, and the far-field boundary conditions are enforced in the red square nodes.

# 3 Histograms

Here is a basic histogram.

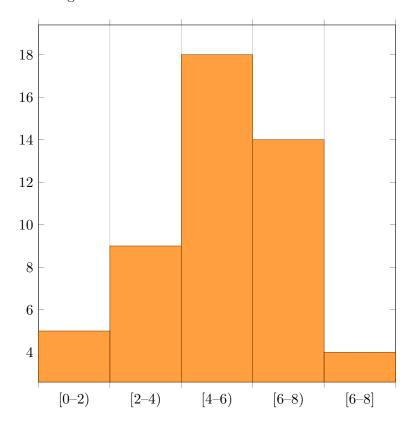


Figure 6: A basic histogram.

### 4 Embedded Bitmap

Color plots are usually not so easy to make in tikz, but they can be easily embedded in TikZ axes as bitmap images.

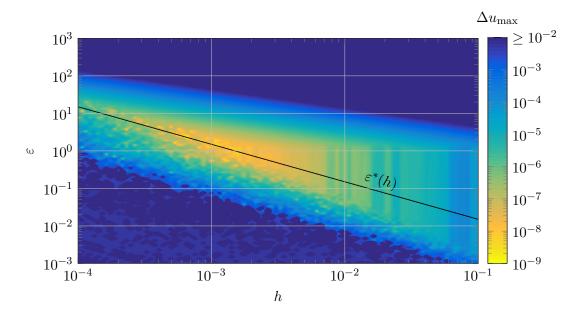


Figure 7: The maximum absolute error  $\Delta u_{\max}$  measured in the subdomain  $\hat{\Omega} = \left[\frac{1}{3}K, \frac{5}{3}K\right]$  around the strike price K, as a function of h and  $\varepsilon$ , for a one-dimensional European call option priced on an equidistant Cartesian grid with RBF-FD stencil size n=3. The black line shows the appropriate choice for the shape parameter. The RBF-FD approximation is performed using GA basis functions.