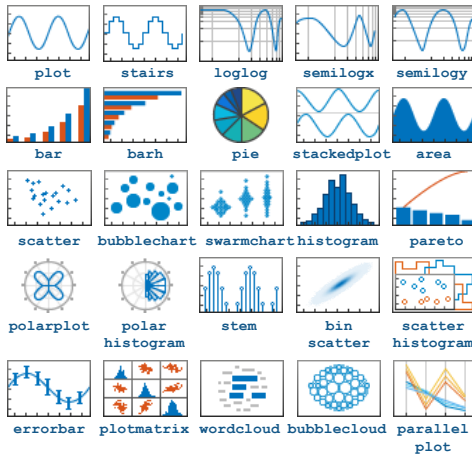


MATLAB Visualization Reference

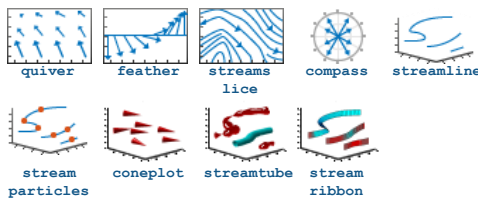
Plot Basic

```
Display plot
>> figure;
>> plot(x,y)
```

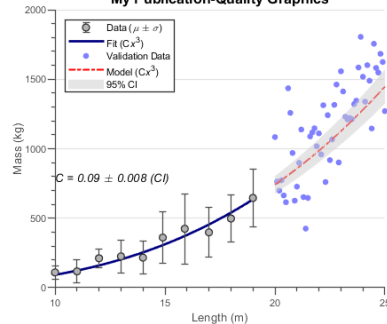
Types of Plots



Types of Vector Plots



My Publication-Quality Graphics



Customizing Plots

```
Get figure window object or current axes objects
>> fig = gcf
>> ax = gca
Get graphics object (an example)
>> h = plot(x,y)
```

Examples of axes object properties



```
Set font properties
>> fontname(gcf, 'Helvetica')
>> fontsize(gcf, 18, 'pixels')
```

```
Set the color, line width, and marker of the plot
>> h.Color = [0 0 0.5]
>> h.LineWidth = 1
>> h.Marker = 'o'
```

LineStyle

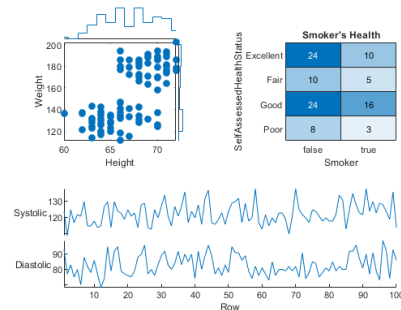


```
Set axes limits
>> xlim([0 10]) % set x-axis limits
>> axis([0 10 0 100]) % set both x,y axes
```

```
Set axes ticks
>> xticks(0:1:10) % set ticks 0 to 10 by 1
```

```
Set the aspect ratio of the axes
>> aspect([1 2 1]) % x:y:z in 1:2:1 ratio
```

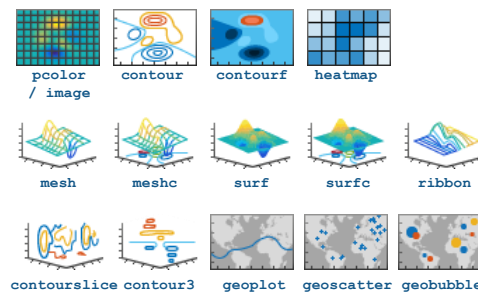
```
Add annotation
>> annotation('textarrow', x, y, 'String', text)
```



Display Image/2D Data

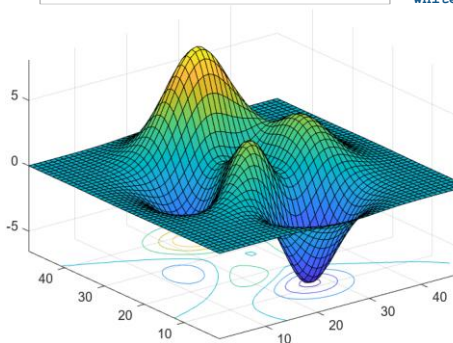
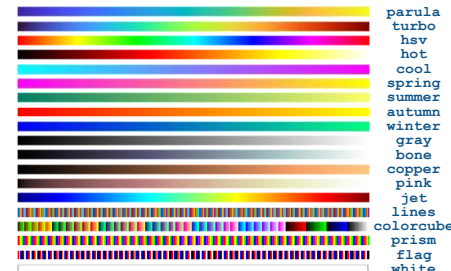
```
Display image
>> figure;
>> image(A)
```

Types of Images



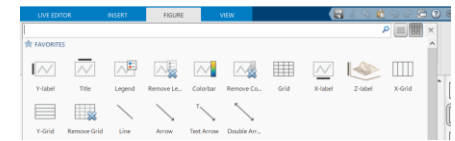
Colormaps

```
Set colormap
>> colormap(colormapName)
```

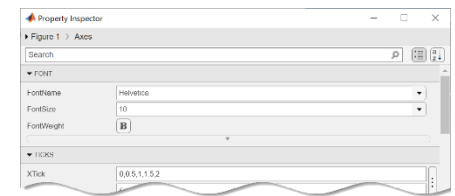


GUI Operations

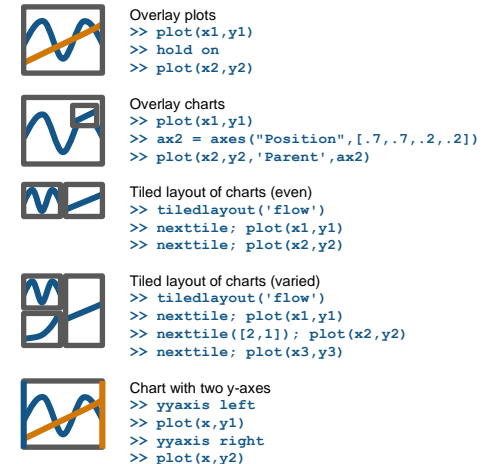
Operation via Live Editor Toolstrip



Operation via Property Inspector



Combining Plots



Types of 3D Plots

