

Lecture 3 workshop

- ~~1. Write a script `drift.m` that makes an .avi movie of a moving sine wave grating.~~
2. Write a script `twocirc.m` that makes a MATLAB plot of two concentric circles, the inner one with a thick red line and the outer one with a thin green line. (Recall that the points on a circle can be written as $(R \cos \theta, R \sin \theta)$, where R is the radius and θ varies from 0° to 360° .) Save the image to a .tif file.
3. Write a function `solid.m` that takes as an argument the handle returned from `plot`, and makes the data points of that plot into filled-in symbols, rather than the default outlined symbols. Test your function as follows:

```
x=linspace(-pi,pi,10);  
h=plot(x,sin(x),'ro-');  
solid(h);
```

Hint: use `set` and `get` to examine and manipulate the handle graphics parameters `Color` and `MarkerFaceColor`.

- ~~4. These are the vertices of a tetrahedron:~~

~~—— $(1, 1, 1)$, $(1, -1, -1)$, $(-1, -1, 1)$, $(-1, 1, -1)$~~

~~Connecting three vertices produces a triangle. There are four ways of choosing three vertices from this set, and the resulting four triangles are the sides of the tetrahedron.~~

~~Write a script `tetra.m` that draws the tetrahedron in 3D using the `patch` function. Make each side a different colour. Apply the following commands to the plot, so that you can click and drag to rotate the figure and check that it really is a tetrahedron:~~

```
—— axis equal  
—— axis vis3d  
—— rotate3d on
```

~~Striked-out problems~~ are based on topics we didn't have time to cover in the lecture. We'll return to them later.