

# Homework 4 : Due 1pm May 1, 2007

CS 593 / 791

April 9, 2007

## 1 Isosurface visualization

Load the `t13d.mat` file. Isosurfaces of this volume are too large for Matlab to visualize, so first smooth and subsample the volume to reduce the dimensions (use the commands `smooth3` and `reducevolume`.)

Compute the triangulated isosurface (`isosurface`, `patch`) for `isovalue = 50`, and the normals for this isosurface. Draw the surface using the color green for the faces, and add a light to the scene. Show renderings of the isosurface from 3 different camera positions.

## 2 Vector Field Visualization

Create a vector field by computing the gradient of the reduced image generated in part 1. Visualize this field using glyphs (`coneplot`). Color the cones green. Show renderings of the coneplot from 3 different camera positions.