Assignment 14
Due: 6:00PM 12/9/19

Using the code you produced for Assignment 8 make a 2-D Gnuplot heat map image (output in encapsulated Postscript form) that depicts your converged solution to the 2-D conducting box electrical potential problem. Using LaTeX produce a short document that describes the partial differential equation that was solved, the finite-difference form of the equation, an enumerated step-by-step description of the iterative algorithm that was used to solve the equation, and the final result that you obtained. Your code will be graded on how well you typeset your equations and how clearly you describe the algorithm and your results!

For simplicity, name the heatmap image file (which your are to include into the LaTeX document using the **`epsfig`** package) <yourlastnamehere>_heatmap.eps

You should submit both the LaTeX file and the EPS file (just upload one at a time). Your LaTeX file must be processed by LaTeX on the Mathlab machines without errors or you will receive a zero on this assignment!

If you have any problems see the TAs or the instructor for help. Do not ask other students to help you debug your code. Submissions via email will not be accepted. **DO NOT WAIT UNTIL THE LAST MINUTE TO SUBMIT THE ASSIGNMENT! LATE ASSIGNMENTS WILL NOT BE ACCEPTED.**

Note:

1. Your LaTeX file should have a block of comment statements at the beginning of the file containing your name and **section number** (consult SOLAR if you are in doubt as to which section you are registered for). Remember the `%` sign indicates a comment in LaTeX. Consult the lecture notes for examples.

2. Your files should be named in the form of <*yourlastname*>_<*yourIDNumber*>_<*hw#*>.tex and <*yourlastname*>_heatmap.eps (Do not put the # sign in the file names!)

3. All latex files be processable using the latex command on the Mathlab machines. **LaTeX files that do not process will receive an automatic grade of zero.** There are no exceptions to this policy

4. Programs must be uploaded into the blackboard assignment page. Programs may not be submitted via email or hardcopy. Programs that are not uploaded into the blackboard assignment page will not be graded.