

**1. Instruction:**

You should do an individual project by yourself. You can continue along the lines for the first project, but obvious efforts should be demonstrated for the second project.

**2. Reports:**

The second class project report is due on April 22, 2008. You can either send me a hard copy or email me the pdf file. Your report should include the following components:

- a. A concise description of the problem or application.
- b. A summary of previous solutions to the problem. Your report should have at least a few references to papers in the literature that you have read to help you implement your project.
- c. A detailed description of your solution to the problem.
- d. Spectral estimation results.
- e. Discussion and analysis of your results and how your solution differs from previous work. Please include numerical examples to validate your theoretical analysis.
- f. Ideas for how your project could be extended or improved if you had more time.
- g. You may include the codes you wrote in the appendices.

**3. Focus:**

Nonparametric spectral estimation methods, parameter estimation fundamentals, array beamforming techniques, parametric methods. I prefer that you focus on parametric methods.