Please choose one of the following two for a final project:

1. **Research project:** Write a brief paper (two to four pages in Physical Review format) on a subject of your choice, relevant to the topics of this course. It should be formatted as a regular article with title, abstract, and bibliography. The main text should contain introductory and concluding paragraphs (whether or not they appear as subsections is not important). The ideal project will involve a combination of literature review, discussion of an analytical or computational model, and application/analysis of experimental data. The latter should ideally include some novel elements (not necessarily substantial) beyond what is available in current literature.

   Students can collaborate in groups provided that the respective contributions of the author of the joint paper is clearly specified in a footnote. (The length of the paper may be proportionately longer in such collaborations.) Clearly the initial hurdle is coming up with an interesting project that is doable in a short time. You should thus start thinking of potential topics as soon as possible, and consult with course staff regarding their suitability (preferably as soon as possible, but no later than 3/31/17). Course personnel are available for consulting and helping students along with these projects.

2. **Teaching site:** Design a web-site that can be used to teach a topic related to Collective Behaviors to non-specialists. For example, imagine that a high school teacher would use a one hour class to teach the material to an honor science class the material using your web-page. As such, you should include introductory materials, references that interested students can pursue on their own. The presentation must also be colorful and dynamic (e.g. by including figures, animations, applets, etc.) to engage and maintain the interests of a diverse non-specialist audience.

Examples of projects from previous years will be made available online in the directory: