Project

→ A project, related at least loosely to the theme(s) of the course, is required.

→ Projects need not be original, but should not be a book report. Independent organization and analysis are required.

→ 5-7 pages + figures. Due last class.

→ Collaboration and coordination are OK, but each write-up should be distinct and independent.

→ Possible topics include, but not limited to:

  — Financial models and their shortcomings, market crashes
  — Turbulence, turbulent mixing
  — Clustering and aggregation processes, mechanisms
  — Transport in biological systems
  — Phase separation; transition dynamics, spinodal decomposition
  — Noisy traffic flow
  — Flocking
  — Multiplicative noise processes
  — Galactic evolution, collisions
  — Collisionless relaxation
  — Statistical physics of wildfires
  — Physics of molecular biological motors
  — Self-organized criticality and its models, especially continuum

→ Students should discuss and OK project topics with the Instructor.

→ Topics should be OK’d prior to Thanksgiving holiday.