Quantifying Uncertainty in Complex Turbulent Systems

Andrew J. Majda
Fall 2013, Courant Institute, NYU
Room 1302, 3:20–5:00pm

All students that want credit for class need to participate in at least one team lecture; the initial team for various lectures consist of postdocs and graduate students working with Majda and others can join. Contact Nan Chen who is in charge of this and the overall coordinators. The lectures from Fall 2011 course are posted at http://www.cims.nyu.edu/~chennan/CourseNotes.html.

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Remarks:

- Lecture 2 is based on Giannakis 2011 lecture notes.
- Lecture 3, 4, 5, 11 and 12 are based on Branicki 2011 lecture notes.
- Lecture 6, 7 and 8 are based on Sapsis-Majda paper: 1) Physica D; 2) J. Nonlinear Science 3) PNAS.
SUGGESTED READING:

(Available in A. Majda's website http://math.nyu.edu/faculty/majda/publicationrevised.html)

Books and Articles (of A. Majda and Collaborators):

• Lecture 1.
  - (with M. Branicki) “An Information-Theoretic Framework for Improving Multi Model Ensemble forecasts”, submitted, July 2013

• Lecture 2.

• Lecture 3 and 4.
  

• Lecture 5.
  

• Lecture 6, 7 and 8.
  

• Lecture 9 and 10.
  

• Lecture 11 and 12.