

# PLAN FOR RESPONSIBLE CONDUCT OF RESEARCH TRAINING

Department of Physics and Astronomy  
March, 2011

## GRADUATE STUDENT TRAINING

- (1 hour) During orientation week, all incoming students will receive a 1-hour lecture covering the following topics:
  - Honesty, accuracy, efficiency and objectivity
  - Authorship, publication, and data ownership and sharing policies
  - Research documentation and reproducibility of results
- (4 hours) In the second semester of first year, all students will be assigned reading from a list of recommended books (e.g. How Experiments End by Peter Galison). The readings will focus on how researchers can avoid fooling themselves and become more objective. Readings will be discussed during our Frontiers in Physics (PHY901) course, which is required for all graduate students.
- (3 hours each year) Once graduate students pass their exams and are into research, they are required to meet with their guidance committee on a yearly basis. As part of the certification for each meeting, each student will fill out a form providing brief answers to two questions. The first will ask the student to describe how authorship is being (was) determined for any publications related to their research. The second question will ask the student to explain how any computer programs, derivations and data are being documented and archived. In particular, the student will have to explain how this leads to the work being reproducible. For each of these questions the student will be expected to consult with their adviser.
- For each of the last two items, the Department will validate that the student satisfied these requirements by entering the events in MSU's Non-Credit Registration System.

## POST-DOCTORAL TRAINING

- (4 hours) Beginning postdocs will be required to attend the two sessions of PHY 901 related to RCR during their first year.
- (3 hours) In each year of their appointment, post-docs will be required to fill out the same two-questions form as described above. This will be done in consultation with the postdoc's adviser.
- The Department will validate satisfaction of the above requirements by entering the events in the MSU's Non-Credit Registration System.
- This system will also be used for the postdocs at the NSCL.

## HUMAN SUBJECTS

- Very little research in physics involves human subjects. However, for those fields that do, all students will be required to meet with their adviser to review the policies, and to file a report with the Director of Graduate Studies summarizing the policies during their first year of research.