

University of Nebraska-Lincoln

ASTRONOMY EDUCATION WORKSHOP

<http://astro.unl.edu>



(Saturday, October 11, 2008 — Avery 19, UNL City Campus)

This event is free to high school and college astronomy/physics instructors and undergraduate students interested in careers in science education. Please register in advance by phone at 402-472-9312 or by email at sparry3@unlnotes.unl.edu. This workshop has three goals: 1) to acquaint educators with innovative usages of instructional technology in astronomy education, 2) to bring together members of the astronomy and physics teaching community to share ideas and identify potential collaborators, and 3) to promote new developments in the UNL Department of Physics and Astronomy.

Workshop Agenda

- 9:00 Welcome
- 9:10 am Keynote Address: “**New Media in the International Year of Astronomy**” (Avery 13b)
Dr. Pamela Gay, Southern Illinois University (SIU)
Abstract: From Blogging to Twittering to Second Life to Citizen Science, the International Year of Astronomy will be coming to a computer near you fast and furious. In this talk you'll get a sneak preview of all the new projects being built just for IYA (and find out about ways that you can be a part of it!).
- 10:30 am Hands-on: “**Taking New Media into the Classroom**” (Avery 19)
Pamela Gay (SIU) & Kevin Lee (UNL)
Abstract: This session will consist of a mixture of classroom and computer lab hands-on experiences with some of the publicly available “New Media” programs associated with the International Year of Astronomy. These will include Second Life, sharing content through iGoogle, Google Sky, the Microsoft Virtual Telescope, and Stellarium.
- 12:00 pm Lunch (Selleck Hall Cafeteria — President’s Room)
- 1:00 pm Hands-on: “**Beyond Ranking Tasks**” (Avery 14) — Todd Young (WSC) & Kevin Lee (UNL)
Abstract: Ranking tasks are useful pencil & paper exercises well-known for their ability to probe student conceptual understanding of physics. This session will look at new materials from the group responsible for ranking tasks (Hieggelke, Kanim, O’Kuma, & Maloney) called nTipers — Newtonian Tasks Inspired by Physics Education Research. We will provide an overview of the materials, break into groups to work on some examples, and conclude with a discussion on how these materials can be used in the physics classroom. All participants will receive nTipers on CD.
- 2:10 pm Short Presentations (Avery 19)
- Tools for Teaching Lunar Phases — Chris Siedell (UNL)
 - An InfraRed Camera Demonstration — Amanda Kruse (UNL)
 - Physics Animations using POV-RAY — Kevin Lee (UNL)
(all participants will receive Michael Gallis’ CD “Animations for Physics & Astronomy”)
- 2:50 pm Wrap-up and door prize raffle (must be present to win!)

This workshop is sponsored by the UNL Center for Science, Mathematics, and Computer Education and the Department of Physics and Astronomy. Numerous educational materials, continental breakfast, and lunch are provided and reimbursement will be made for travel costs up to \$50. The University of Nebraska–Lincoln does not discriminate based on gender, age, disability, race, color, religion, marital status, veteran’s status, national or ethnic origin, or sexual orientation.