



# The Printed *Physics* *Astronomy* *Geology*

A Newsletter of the IUSB  
Department of Physics & Astronomy

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## *Physics Awards at CLAS Honors Night*

Five IUSB physics majors were honored at the College of Liberal Arts and Sciences Honors Night ceremony on May 1. CTS Continuing Student Scholarships were awarded to **Josh Eby**, **Andrew Gearhart**, **Scotty Myers**, **Nate Vander Werf**, and **Gregory Warrell**. Gregory also received a Gerkin Memorial Scholarship and the Departmental Excellence Award in Physics. Nate was the recipient of a J. Wesley and Roberta Robbins Prize in Science and Religion. Congratulations to these award-winning IUSB physics majors!

## *Student Research Presentations*

IUSB physics majors were again presenting results of their research during the 2007-2008 and 2008-2009 academic years. **Sara Huggins** and **Noah Cooper** presented at the 2007 National Conference on Undergraduate Research (NCUR) in California, and **Savan Kharel** and **Nana Boateng** presented at NCUR 2008 in Salisbury, MD. Noah, Savan, and **Gregory Warrell** also presented at the College of Arts and Sciences Research Conference at IU Northwest in November, 2007.

The 2008 edition of IUSB's *Undergraduate Research Journal* includes an article by Gregory on his detector development work for Notre Dame's recoil mass separator.

## *Research Award for Dr. Levine*

Dr. **Ilan Levine**, Assistant Professor of Physics, is the recipient of the 2008 IUSB Distinguished Research Award. The award was announced by Vice Chancellor for Academic Affairs Alfred J. Guillaume, Jr., at the April meeting of the IUSB Academic Senate. Since coming to IUSB in 2002, Dr. Levine has become a key collaborator in the PICASSO and COUPP dark matter experiments. Preliminary results from COUPP were published in February in *Science*, one of the premier venues for publication of important results in all areas of the natural sciences.

Prof. Levine is the third recipient of this award from the Dept. of Physics and Astronomy. Prof. Steve Shore, now Professor of Astrophysics at the University of Pisa (Italy), was the first recipient of the award in 1999, and Prof. Jerry Hinnefeld received the award in 2006.

As the recipient of this award, Dr. Levine will present a public lecture on his research at some point in the 2008-2009 academic year. Look for information on the scheduling of this talk in future issues of *The Printed PAGE*.

## *ΣΠΣ Induction*

Six new members were inducted into the IUSB Chapter of ΣΠΣ, the national physics honor society, on April 17, 2008. **Ryan Bauernfeind**, **Josh Eby**, **Sandy Kentner**, **Dan Stalvey**, **Steve Vandendriessche**, and **Gregory Warrell** join the eight members from the inaugural class of 2006. The induction ceremony followed a well-attended PHYS-S106 talk by Prof. Peter Garnavich of Notre Dame (also a ΣΠΣ member!), on dark energy.



## *Promotions for Dr. Lynker, Dr. Levine*

The department is celebrating two important professional milestones this spring. By action by the IU Board of Trustees at their May meeting, Dr. **Monika Lynker** was promoted to the rank of Professor and Dr. **Ilan Levine** was promoted to the rank of Associate Professor, with tenure. The promotions will take effect on July 1.

Dr. Lynker joined the permanent faculty of IUSB in the fall of 1995 as an assistant professor and was promoted to associate professor in 2001. In 2005 she was elected to IU's Faculty Colloquium on Excellence in Teaching (FACET), the first member of the department to receive this honor. She has served as the principal academic advisor for physics majors since 2004, and as Director of the CLAS Advising Center since 2006.

Dr. Levine joined the IUSB faculty in 2002, following a post-doctoral position at the Sudbury Neutrino Observatory (SNO). He is the recipient of the 2008 IUSB Distinguished Research Award (see story in this issue).

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## *Intro Seminar Course Debuts in Fall 2007*

A new 1-cr. course, PHYS-S106 Contemporary Physics Seminar was offered at IUSB for the first time in Fall 2007. This course, which carries no prerequisites, is intended to offer a taste of the excitement of current research in physics to students at all levels, from first semester students to those nearing graduation. The course features presentations by the department's faculty and upper-level students on their own research, along with talks by outside speakers. Physics-related films, with opportunity for questions and commentary, are also featured in some weeks. The course is graded S/F (pass/fail), and satisfactory performance requires regular attendance and preparation of a brief summary of each presentation. It meets from 2:30 pm to 3:45 pm on Thursdays.

The presentations by external speakers are generally open to the public and advertised on campus and through the department's listserv. To subscribe to the listserv, follow the link on the left side of the department web page.

External speakers in 2007-2008 included Profs. Mitch Wayne, Morten Eskildsen, and Peter Garnavich of Notre Dame, Prof. Romualdo deSouza of IU Bloomington, and Dr. Peter Cooper of Fermilab, as well as IUSB alums Dr. **Shelly Leshner**, now a post-doc at Lawrence Livermore National Laboratory, and **William Zech** and **Sara Huggins**, currently grad students at Notre Dame and Ohio State, respectively.

The course is being organized in Fall 2008 by Dr. Jerry Hinnefeld. If you have questions about the course or suggestions for speakers or topics, or if you are an alum who would like to talk about your post-IUSB career, please contact Prof. Hinnefeld at [jhinnefe@iusb.edu](mailto:jhinnefe@iusb.edu).

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## *New Faces*

**Rick Mecklenburg**, chief meteorologist for television station WSBT in South Bend, joined the department as an adjunct lecturer in earth science in Spring 2007. Rick teaches a very popular version of GEOL-N190 The Natural World, on the topic "Weather Analysis and Forecasting."



**Joe Nate** joined the department as Chief Technician, succeeding Ray Nymberg, in the fall of 2007. Joe previously held a similar position with the Purdue statewide technology program in South Bend.



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## *Major Elective for Fall '08 is Geophysics*

The core upper-level courses of the physics major at IUSB are what they have always been — Modern Physics, Modern Lab, E&M, Thermodynamics, Analytical Mechanics, and Quantum Mechanics. However, since about 2004 we have been able to offer one course each semester that is applicable to the physics major but outside this core — we call these courses "major electives." Some recent examples are PHYS-P321 Techniques of Theoretical Physics; PHYS-S405 Readings: General Relativity; AST-A453 Topical Astrophysics - Nuclear Astrophysics, PHYS-P473 Intro to String Theory; and PHYS-P334 Fundamentals of Optics.

The major elective for Fall 2008 is GEOL-G490 UG Seminar - Geophysics to be taught by Dr. Henry Scott. (We hope to change the number and name to GEOL-G413 Intro to Geophysics in time for it to show up that way on transcripts.)