

*Department of Physics and Astronomy*

*2010 Year in Review*



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**Scholarship Recipients:**

**Arthur J. Pejsa Aerospace Award (\$1,000)**

- Michelle Stephens

**Monica E. Bainter Memorial Award (\$1,500)**

- Liza Wernicke

**Monica E. Bainter Scholarship (\$500)**

- Micah Broehm
- Steve Mattek
- Andrew Weekes

**Allen Blocher Scholarship (\$700)**

- Joseph Hottenstein

**William C. and Esther Hansen Memorial Scholarship (\$1000)**

- Orry Griffin

**Freshman Scholarship (\$750)**

- Kyle Leaf
- Timothy Twohig

**Graduating Seniors:**

- David Fabian
- Kevin Godec
- Karl Larsen
- Tekla Larsen
- Brian Markovic
- Dean Pawlisch
- Justin Perket
- Kyle Skenandore
- Anthony Stapel
- Kyle Taylor
- Christopher Zemke

## Notable Selected Activities and Accomplishments

Single-underline indicates a faculty/staff member, and double-underline indicates a student.

### 1. Teaching

- Brad Hinaus developed learning objectives for Physics 275: Modern Perspectives of Physics. This course is designed to meet the needs of high school natural science teachers.

### 2. Publications, Presentations and Posters of Faculty and Students

- The Effect of Ag Substitution in the Mixed Conductor  $\text{Cu}_7\text{PSe}_6$ ; R B Beeken, C R Driessen and L A Wilson; *Journal of Physics and Chemistry of Solids* 70 (2009) 1181-1184.
- Jason Ladwig and Adriana Durbala presented the poster *Spiral Arm Pitch Angle as an Indicator of the Black Hole Mass in Isolated Galaxies* at the College of Letters and Science Research Symposium.
- Liza Wernicke, Yia Xiong and Katie Jore presented the poster *Studies of Neutral Hydrogen in Poor Clusters of Galaxies* at the College of Letters and Science Research Symposium.
- Zong Cha Vang and Andrew Weekes, with mentor Ken Menningen presented the talk *Dual Photoactive Electrodes for Unassisted Water Splitting* at the College of Letters and Science Research Symposium.
- Ken Menningen presented a talk: *A Technological Teaching Tool*, Wisconsin Association of Physics Teachers 2009 Meeting, Whitewater WI, October 30-31, 2009.
- Ken Menningen gave poster, [\*Exploration of Surface Treatments for Semiconductor-Based Photoelectrochemical Water Splitting\*](#), at the Electrochemical Society Meeting in Vancouver, BC on April 27, 2010
- Randy Olson produced two new planetarium shows. *Sky Quest* details the night sky and one woman's experience becoming an astronomer. *Bad Astronomy: Myths and Misconceptions* looks at critical thinking in astronomy.
- David Tamres presented an invited paper, *How Time Becomes Elastic* at the annual meeting of the Semiotic Society of America in Cincinnati, OH, October 17, 2009.
- Michelle Stephens and David Tamres presented a poster paper, *Motions of a Small Black Hole Travelling Through the Earth* at the American Association of Physics Teachers meeting in Ann Arbor, MI, July 28, 2009.
- Michelle Stephens and David Tamres presented a poster paper, *Testing Nature's Limits: Black Holes and the Large Hadron Collider*, at the Wisconsin Association of Physics Teachers in Whitewater, WI, October 30, 2009.

### 3. Applied Emphasis Physics Major

- Tony Stapel successfully completed an internship at Siemens Company.
- Kyle Skenandore successfully completed an internship at the Dept. of Public Works, in Oneida, WI.

4. Outreach Activities

- Bob Beeken, Katie Jore, Ken Menningen and Randy Olson presented talks or workshops for the STEM outreach program in November 2009.
- Ken Menningen made four presentations for the College Days for Kids program in April 2010.
- Randy Olson presented a LIFE class in October 2009 titled *Hubble Vision: Discoveries from the Space Telescope*.
- The Planetarium presented programs to over 11,000 visitors, including university classes, school groups, community groups, and public programs.
- Brad Hinaus, Katie Jore, Hai Nguyen, and Chris Verzani designed and judged 4 different events for the Wisconsin Science Olympiad held in Madison, WI with the help of students: Paulette Epstein, Michelle Stephens, Joe Hottenstein, Justin Perket, Jacob Berg, Timi Hohl, and Tony Albertin.