New Faculty Members

Keith Andrew

We are fortunate to have Dr. Alex Barzilov join us this year as a new member of the faculty. Dr. Barzilov did his PhD work at Obinsk at the Institute for Physics and Power. His work involved modeling neutron interactions with novel materials. In addition to teaching, part of his appointment is to work at the Applied Physics Institute where he can explore the uses of neutrons in novel material detection and in installing the soon to arrive 2.5 MeV particle accelerator.

Dr. Alex Barzilov

photo by Sheryl Haagan-Booth

We also wish to recognize Dr. David Barnaby for becoming a permanent member of the department as a Research Associate in Astronomy. Dr. Barnaby received his PhD from the University of Wyoming and works on the instrumentation, robotic usage and data collection from Bell Observatory.

Dr. David Barnaby

photo by Richard Gelderman

Dr. Andrew came to Western Kentucky University from Eastern Illinois University. He received his Ph.D. from the University of Arkansas in 1987 where he studied the formation of special bound states of gluons, quarks and leptons consistent with quantum chromodynamics. He focused on the production of bound gluonic states called glueballs and oddballs. His MA work was on applications of Twistor Theory for high energy interactions and quantum gravity. He moved to Bowling Green with his wife and two children and remains an avid, but ever slower, cyclist and fan of the Tour de France.

Dr. Keith Andrew

photo by Richard Gelderman

Biophysics

Wieb van der Meer

Dr. Wieb van der Meer and Dr. Christopher Bassey conduct research projects in Biophysics. Ongoing research activities include:

- Theoretical study of the effects of orientation on the distance measured with Fluorescence with Resonance Energy Transfer (FRET). FRET is a technique widely used in Biophysics.
- Theoretical study of Fluorescence Depolarization in oriented actin/myosin systems.
- Water measurement in porous media using electromagnetic techniques.
- Development of microwave sensors for ice detection and measurements on aerospace structures.
- Interaction of electromagnetic waves with living systems.

2005 Western Kentucky Physics Olympics honors World Year of Physics

Richard Gelderman

On Saturday, April 30th, 2005 the WKU Dept of Physics and Astronomy is inviting each high school in the region to send one or more teams of four to compete in the Western Kentucky Physics Olympics. This year’s theme is “Einstein’s Miraculous Year – the World Year of Physics”. Physics Olympics offers teams of four high school students the opportunity to participate in a fun-filled half-day competition consisting of a pentathlon of challenging problem-solving activities that reward teamwork, creativity, and communication. The Western Kentucky Physics Olympics will be every bit as much fun as it will be educational, please encourage participation in anyway you can.