

# DIVISION OF ATOMIC, MOLECULAR AND OPTICAL PHYSICS NEWSLETTER

A Division of The American Physical Society

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**JOHN B. DELOS**, Chair  
Physics Department  
College of William and Mary  
Williamsburg, VA 23187-8795  
Phone: (757) 221-3511  
FAX: (757) 221-3540  
[jbdelo@facstaff.wm.edu](mailto:jbdelo@facstaff.wm.edu)

**CHRIS H. GREENE**, Chair-Elect  
JILA and Physics Department  
JILA CB 440  
University of Colorado  
Boulder, CO 80309-0440  
Phone: (303) 492-4770  
FAX: (303) 492-5235  
[chg@jilacg.colorado.edu](mailto:chg@jilacg.colorado.edu)

**F. BARRY DUNNING**, Vice-Chair  
Dept. of Physics and Astronomy  
Rice University MS 61  
6100 Main Street  
Houston, TX 77005-1892  
Phone: (713) 348-3544  
Fax: (713) 348-4150  
[fbd@rice.edu](mailto:fbd@rice.edu)

**TIMOTHY J. GAY**,  
Secretary/Treasurer  
Behlen Laboratory of Physics  
University of Nebraska  
Lincoln, NE 68588-0111  
Phone: (402) 472-2773  
FAX: (402) 472-2879  
[tgay1@unl.edu](mailto:tgay1@unl.edu)

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## 2002 DAMOP ANNUAL MEETING

May 29-June 1, 2002  
The College of William and Mary  
Williamsburg, Virginia

The 33rd DAMOP meeting will take place on the campus of the College of William and Mary in Williamsburg, Virginia, Tuesday evening, May 28, 2002 through Saturday noon, June 1, 2002

DAMOP 2002 will follow the annual meeting of the Division of

Particles and Fields (DPF), which meets in Williamsburg May 24-28, 2002. Planning is underway to construct a session of interest to participants of both conferences. This session would take place just after the close of the normal DPF 2002 meeting (noon on Tuesday, May 28).

A DAMOP tutorial session for students will be held on Tuesday, May 28. The event will be hosted by Old Dominion University in nearby Norfolk, VA. For more information, please refer to <http://www.physics.odu.edu/symposium>.

There will again be limited support for student travel this year. An [application](#) is appended to this Newsletter.

Website: <http://www.damop2002.org>

Online Abstract Submission: <http://abstracts.aps.org>

## RAY FLANNERY WINS THE BATES PRIZE

In November, Ray Flannery, the Regents Professor of the School of Physics at Georgia Tech, was awarded the 2001 Sir David Bates Prize from the Institute of Physics (IOP) in the United Kingdom. He was cited for "his distinguished contributions to the field of theoretical atomic physics and, in particular, for his studies of recombination processes with applications to astrophysics and plasma physics."

The Bates Prize was created two years ago by the IOP to honor research scientists who make significant advances in atomic and molecular physics. The prize is named in honor of Professor Sir David Bates. It includes an engraved plaque and #300, about \$425. Dr. Flannery is the second researcher to earn the prize. The first was Sir Philip Burke, a professor in the Department of Applied Mathematics and Theoretical Physics at The Queen's University of Belfast.

Ray has already received many honors for his work, including the Will Allis Prize from the APS. In addition to being a Fellow of the APS and the IOP, he was also elected an honorary member of the Royal Irish Academy in 1997. Queen's University - his alma mater - bestowed on him an honorary D.Sc. degree in 1998 for his distinction as a scientist.

## DAMOP DOMINATES NOBELS!

For those readers who have been living under a rock, The Royal Swedish Academy of Sciences announced on the ninth of October that Eric Cornell (JILA, NIST), Carl Wieman (JILA, U. of Colorado), and Wolfgang Ketterle (MIT), won the 2001 Nobel Prize in Physics "for the achievement of Bose-Einstein condensation in dilute gases of alkali atoms, and for early fundamental studies of the properties of the condensates". Each Laureate will receive about \$324,000, and will undoubtedly want to donate a significant fraction of this amount to the Fund for Retired DAMOP officers.

## DAMOP PARTICIPATION IN THE APS MARCH MEETING

In 2002, DAMOP will be a participating unit in the March Meeting of the American Physical Society. The March Meeting is by far the largest meeting of the APS, and always features much material of interest to the DAMOP membership. This year there are four invited symposia that are co-sponsored by DAMOP and the Division of Condensed Matter Physics: Bose-Einstein Condensation; Atomic Dynamics in Optical Lattices; Scalable AMO Physics Approaches to Quantum Computing; and Quantum Computation. In addition, the March Meeting traditionally has a symposium featuring the most recent Nobel Laureates in Physics - all of whom are DAMOP members this year! - and a talk by the winner of the Maria Goeppert-Mayer Award, who this year is Deborah Jin, recognized for her work on a degenerate atomic Fermi gas.

Thus, this year in particular, the March Meeting will be an appropriate forum for DAMOP contributed papers in areas such as degenerate quantum gases, quantum information, and coherent control. The meeting takes place in Indianapolis, Indiana, March 18-22, 2002. For further information, consult the meeting home page at [/meet/MAR02/](#)

## PRECISION MEASUREMENT GRANTS

The National Institute of Standards and Technology (NIST) expects to make two new Precision Measurement Grants that start on 30 September 2002. Each grant is in the amount of \$50,000 per year and may be renewed for two additional years for a total of \$150,000. They are awarded primarily to faculty members at U.S. universities or colleges for research in the field of fundamental measurement or the determination of fundamental physical constants. Applications must reach NIST by 1 February 2002. Details are on the Web at: <http://physics.nist.gov/pmg>.

For further information contact:

Dr. Peter J. Mohr, Manager  
NIST Precision Measurement Grants Program  
NIST, Building 225, Room B161  
100 Bureau Drive, Stop 8401  
Gaithersburg, MD 20899-8401  
301-975-3217

## A NEW DIRECTOR OF THE DOE OFFICE OF SCIENCE

President Bush has nominated Raymond L. Orbach, chancellor of the University of California, Riverside, as the new director of the Department of Energy Office of Science. The Office of Science exercises oversight of national laboratories, funds university research, and helps set the U.S. scientific agenda. As director, Orbach will

manage an organization that is the third largest federal sponsor of basic research in the United States and is viewed as one of the premier science organizations in the world. Formerly known as the Office of Energy Research, the office also provides management oversight of the Chicago and Oak Ridge Operations Offices, the Berkeley and Stanford Site Offices, and the ten DOE non-weapons laboratories. Orbach, 67, is a theoretical physicist. He holds a B.S. from Cal Tech in physics and a PhD. in physics from UC Berkeley where he was elected to Phi Beta Kappa. He is the author of more than 240 articles in scientific publications.

## THE LOS ALAMOS SUMMER SCHOOL

The Los Alamos Summer School (LASS), a joint project of the University of New Mexico (UNM) and the Los Alamos National Laboratory (LANL), attempts to attract the best upper level undergraduates toward research careers in physics-related sciences. The program combines lectures, tutorials, and mentored research projects, many of which emphasize supercomputing applications. AMO physics has traditionally been our strongest suite. The 10 week summer program (June - August) is headquartered on the Los Alamos campus of UNM. The students spend much of their time working at sites within the Los Alamos National Laboratory. During the past thirteen years, LASS has graduated over 200 students (56 in the last three years). The students, normally juniors majoring in physics, are recruited from colleges and universities across the country. Typically 20 are selected from over 100 applicants. For the past ten years, the School has been funded by a National Science Foundation (NSF) Research Experience for Undergraduates (REU) grant to UNM and by the DOE Educational Program Office and the Nuclear Weapons Program at LANL, in addition to in-kind support. Funding has recently been awarded to support the School for three more summers. The 2002-2004 School will run for ten weeks each summer, concurrently with the summer semester at the University. The dates for the summer of 2002 are from June 3 to August 9. The students are provided with housing, tuition and travel expenses, as well as a handsome stipend. The lectures, one to four classes per instructor, focus on topical issues in physics and attempt to give the students a realistic impression of the vast scope of scientific developments. The lecturers, instructors and mentors include members of the LANL and UNM staffs as well as distinguished visitors. Applications for the Class of 2002 are being accepted via our web site: <http://www.phys.unm.edu/LASS/>. Deadline for applications is March 1, 2002.

## PHYSICAL REVIEW LETTERS HAS A NEW DAE!

A new divisional Associate Editor has joined the staff at Physical Review Letters: Keith Burnett of Oxford University. The other editors in AMO physics at PRL are currently Phil Burke, Eric Cornell, Maciek Lewenstein, Mark Raizen, and Wolfgang Schleich.

## **INTERNATIONAL WORKSHOP ON PHOTOIONIZATION (IWP2002)**

22-26 August, 2002  
Spring-8, Japan

Workshop web site: <http://www.spring8.or.jp/iwp2002/>

## **STORRS MEETING PROVES LUCRATIVE**

Thanks to a frugal and efficient local committee (Ed Pollack, Chair), the final accounting of the 2000 Storrs meeting indicates that the net profit for DAMOP was \$22,922, after all expenses. Due to a bookkeeping error, the Secretary/Treasurer had reported at the London Business Meeting that the profit was less than \$10,000. He apologizes for any confusion and/or consternation this may have caused.

## **34th CONFERENCE of EUROPEAN GROUP for ATOMIC SPECTROSCOPY (EGAS 34)**

Sofia, Bulgaria, 9-12 July 2002

The scientific program of EGAS 34 will cover all aspects of spectra of simple and complicate atoms, ions (including highly charged) and small molecules; atomic constants and application in astrophysics. The Conference will be focused to the rapid progress of quantum optics, laser manipulation of atoms, cooling and trapping of atoms and molecules, Bose-Einstein condensate, atomic lasers, laser spectroscopy, generation of ultrashort EM pulses, and application of quantum optics in metrology. Special attention will be paid to the atomic spectroscopy aspects of low and high temperature plasma and application to light sources. The experimental methods and instrumentation will be discussed.

Invited speakers include E. Aleksandrov (St. Petersburg, Russia), K. Bergmann (Kaiserslautern, Germany), R. Blatt (Insbruck, Austria), E. Biemont (Liege, Belgium),

A. Bogaerts (Antwerpen, Belgium), D. Charalambidis (Crete, Greece), L. Curtis (Toledo, USA), P. M. Ducloy (Paris, France), S. Manervik (Stockholm, Sweden), D. Guhry-Odelin (Paris, France), G. Guthvhrlein (Hamburg, Germany), J. Pickering (London, UK), P. Pillet (Paris, France), and K. Taylor (Belfast, Ireland).

Deadline for submission of abstracts is 30th April 2002. The abstracts must not exceeded 2 pages. Register online at <http://egas34.issp.bas.bg/prereg>

### **CONTACT ADDRESS**

K. Blagoev, 34EGAS Conference  
Institute of Solid State Physics

72 Tzarigradsko Chaussee  
1784 Sofia Bulgaria  
Tel: (359-2) 7144 646  
Fax: (359-2) 974 3632  
WWW: <http://www.issp.bas.bg/egas34/index.html>  
E-mail: [egas34@issp.bas.bg](mailto:egas34@issp.bas.bg)

## **STUDENT TRAVEL SUPPORT FOR THE WILLIAMSBURG MEETING**

Limited travel support is available to assist students in traveling to Williamsburg, Virginia for the DAMOP meeting this May. Students should complete the [attached form](#) and return it before 12 April 2002.

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[DAMOP Homepage](#)