Precision Measurement and Fundamental Constants

NEWSLETTER

A Topical Group of The American Physical Society *http://www.aps.org/units/pmfc*

No. 25 May 2002

2002 Annual Meeting in Williamsburg, May 28-June 1.

Our annual meeting will be held in conjunction with DAMOP this year. Our group business meeting will take place Wed. evening, May 29, at 19:30 in meeting room Tidewater B. Among many sessions of interest to our group, a joint GPMFC and DAMOP invited session has been organized which focuses on precision optical frequency measurements. Session M4 takes place Friday May 31 at 11:30 AM in Room 102 Tyler Hall. The titles and speakers are:

"Precision measurements and applications of femtosecond frequency combs," R. Jason Jones (JILA, NIST).

"An Optical Clock/Frequency Standard at 657 nm Based On Laser-Cooled Neutral Calcium," Chris Oates (NIST).

"Trapped Hydrogen Spectroscopy: Fundamental Constants and Atomic Clocks,"

Lorenz Willmann (Kernfysisch Versneller Instituut, Groningen, The Netherlands).

"Helium Spectroscopy and an Optical Comb," G. Gabrielse (Harvard University).

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APS Fellows

The fellowship committee of GPMFC is chaired by our group's Vice-Chair. Each year the fellowship committee reviews and forwards the nominations of candidates whose work has significantly impacted the field of precision measurement and fundamental constants. Follow the fellowship links on the APS web site for procedures if you know of a deserving candidate. This year, congratulations go to our new APS Fellows, whose names and citations follow. We thank them for their outstanding work.

Ephraim Fischbach (Purdue University), "For his contributions to understanding the connection between precision gravity measurements and high-energy physics."

Gidley, David W. (University of Michigan), "For his pioneering contributions to the physics of positronium including precision measurement of the singlet and triplet state lifetimes and for his development of applications and techniques using positrons for the study of materials."

Walsworth, Jr., Ronald Lee (Harvard-Smithsonian Center for Astrophysics), "For the development and use of atomic clocks in tests of fundamental symmetries; and multidisciplinary applications of related technology."

2002 Election Results

The results for the 2002 election are as follows: Ron Walsworth is elected to Vice-Chair, while Jens Gunlach and David Weiss are elected to begin their terms as executive committee Members-at-Large. Terms will begin with the end of the Annual Meeting at Williamsburg. Wethank the nominating committee of Dave DeMille (Chair), Kurt Gibble and John Doyle.

Richard Deslattes Remembered

This year Blayne Heckel chaired the program committee for our group. For the April meeting of APS, held in Albuquerque NM, a session which focused on the research areas of Dick Deslattes was organized by Blayne. We thus remember and celebrate those areas of science in which Dick Deslattes so greatly contributed. The titles and speakers are given below: (session chaired by Bernd Crasemann, U. of Oregon)

"Si Lattice, Avogadro Constant, and X- and Gamma-Ray Measurements: Contributions by R.D. Deslattes Jr.," Ernest Kessler (NIST). "X-ray Imaging and Spectroscopy in Space,"

Herbert Schnopper (Smithsonian Astrophysical Observatory).

"X-Ray Studies of Inner-Shell Resonances and Thresholds,"

Stephen Southworth (Argonne National Laboratory).

"X-ray Measurements of Thin Films and Multilayers," Richard Matyi (NIST).

Current Topical Group Executive Committee

Chair:

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Chair-Elect and Vice-Chair James Faller JILA University of Colorado Boulder, CO 80309-0440 Phone: (303) 492-8509 Fax: (303) 492-5235 E-mail: <u>fallerj@jila.colorado.edu</u>

Past Chair:

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Secretary-Treasurer: David Shiner Department of Physics University of North Texas Denton, TX 76203-1427 Phone: (940) 565-3874 Fax: (940) 565-2515 E-mail: <u>shiner@unt.edu</u>

Members-at-Large (Year term expires in parentheses):

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Committee Chairs

Program Committee: Blayne Heckel Nominating Committee: Dave DeMille Fellowship Committee: James Faller Pipkin Award Committee: Gerald Gabrielse



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