

NEWSLETTER

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

No. 24 October 2000

2001 Annual Meeting in Washington, D. C. April 28-May 1

The Annual Meeting of the Topical Group will be held in conjunction with the April Meeting of the APS at the Renaissance Hotel in Washington, D. C. For more information on the meeting, check the APS Meetings website at <http://www.aps.org/meet/apr01/>.

Invited sessions are planned on optical frequency synthesis and measurements and on experimental gravitation (joint with the Topical Group on Gravitation). An invited session on the history of atomic collision physics will be organized jointly with the Forum on the History of Physics and the Division of Atomic, Molecular, and Optical Physics.

Annual Meeting Deadlines:

Abstracts:	12 January
Early registration:	16 February
Postdeadline Abstracts:	9 March
Late registration:	30 March
Housing:	30 March

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Travel Support for Young Scientists

The Topical Group will provide partial travel support to several graduate students, post-docs, and recently graduated physicists to present contributed papers in the area of precision measurement and fundamental constants at the APS Meeting 28 April - 1 May. Criteria for an award include the relevance of the paper to the Topical Group and travel reimbursement needs. Participants may initiate their request for consideration by sending an additional copy of their submitted abstract to the Secretary-Treasurer of the Topical Group at the same time that they submit their abstract to the APS. Please note that your abstract must be submitted to the APS, and should be labeled for a session on precision measurement and fundamental constants. If you are applying to another APS unit, such as DAMOP, you should disclose this fact in your application.

Topical Group to Meet with DAMOP in 2002

After some discussion within the Executive Committee, the opinions were solicited from the general membership of the Topical Group regarding a proposal to meet every other year with DAMOP. In the other years, the Topical Group would meet with the April APS Meeting.

Background: Previously, the DAMOP annual meeting was held with the APS Spring (April) meeting once every 3 years. This arrangement has now stopped for the foreseeable future, because of a decision by DAMOP, and DAMOP meets by itself. The Precision

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Minutes of the Annual Business Meeting of the Precision Measurement and Fundamental Constants Topical Group

Sunday, 30 April 2000, Long Beach, California

Peter Bender called the meeting to order at 5:30 PM. Approximately 12 members were present.

Election results

In the recent Topical Group elections, Blayne Heckel was elected Vice Chair, and John Prestage and David DeMille were elected Members-at-Large. Terms of the new officers began with the close of the 2000 Annual Meeting. At that time, Richard Deslattes became Chair-Elect, Peter Mohr became Chair, and Peter Bender became Past-Chair. Continuing Members-at-Large are Siu-Au Lee, Anton Zeilinger, Ralph Conti, and Steven Lamoreaux. The nominating committee consisted of Steven Lamoreaux (chair), Larry Hunter, William Klipstein, and Luis Orozco.

Membership statistics

The official membership count for FY 2000 is 431, which is 1.01% of the APS membership. This is a decrease, both in absolute and relative numbers from previous years. For FY 1999, the corresponding numbers were 450 and 1.08%. For FY 1996, they were 482 and 1.18%. There was some discussion of how to increase the membership by recruitment.

Financial report

As of March 31, 2000, the balance in the Topical Group account was \$13,717.70, an increase of about \$2000 from the year before. For the current fiscal year, which began in July, the total income was \$2,870.51, of which \$2,155.00 was from membership dues and \$715.51 from investment income. Expenses for the current fiscal year were \$2,047.99, of which \$1,447.99 was for newsletters and \$600 for young scientist travel grants. The only anticipated expense for the remaining part of the fiscal year was the cost of the Executive Committee lunch.

Discussion

The topic of broadening the scope of the Topical Group was discussed. Suggestions had been made to include more application-oriented topics. However, more interest was expressed in increasing the membership by active recruitment of those working in the preci-

sion measurement and fundamental constants area who are not yet members. Blayne Heckel will explore setting up a Membership Committee.

Rogers Ritter noted that the Instrument and Measurement Science Topical Group had once been interested in merging with the GPMFC but had since lost interest. Sponsoring joint sessions with other groups or divisions was suggested. The upcoming NIST Centennial could serve as a focus for joint sessions. There was some discussion of meeting jointly with DAMOP rather than with the April APS Meeting in some years. The possibility of sponsoring an invited session at the March APS Meeting was also brought up.

The meeting was adjourned at 6:00 PM.

Respectfully submitted,
Wayne Itano, Secretary-Treasurer

NIST Precision Measurement Grants

Applications are being solicited for two new Precision Measurement Grants, sponsored by the National Institute of Standards and Technology, to be awarded beginning 1 October 2001 (Fiscal Year 2002). Each grant is in the amount of \$50,000 per year, renewable for up to two additional years, for a total of \$150,000. NIST sponsors these grants to encourage research by U.S. university and college faculty members in the field of precision measurement and fundamental constants and to foster contacts between NIST scientists and such faculty members actively engaged in such work. Candidates' pre-proposal summaries and biographical information must reach NIST by 1 February 2001 to be considered for the FY 2002 awards. For more information, contact Peter J. Mohr, Chairman, NIST Precision Measurement Grants Committee, National Institute of Standards and Technology, Building 225, Room B161, Gaithersburg, MD 20899-0001, (301) 975-3217, mohr@nist.gov.

Nominations for 2001 Elections

The Nominating Committee, consisting of Siu-Au Lee (Chair), John Price, and Win Smith, presents the following slate of candidates for the 2001 elections:

For Vice-Chair:

James Faller, JILA

Tim Chupp, University of Michigan

For Secretary-Treasurer:

David Shiner, University of North Texas

Alvin Sanders, University of Tennessee, Knoxville

For Executive Committee Member-at-Large (two positions):

Luis Orozco, SUNY, Stony Brook

Ho Jung Paik, Univ. Maryland

Steve Rolston, NIST, Gaithersburg

David Church, Texas A&M

Biographies and ballots will be distributed in a later mailing.

Topical Group to Meet with DAMOP in 2002, Continued

Measurement & Fundamental Constants Topical Group has met with the APS Spring Meeting throughout its history. As far as the Topical Group is concerned, the meetings were much more successful when they were combined with DAMOP. This is natural, since so many Topical Group members are also members of DAMOP. Other members overlap more strongly with gravitation and other areas that are better represented at the APS Spring Meeting.

Eight responses were received, of which six were in favor of the proposal and two were opposed. David DeMille was invited to discuss the proposal at the DAMOP Executive Committee Meeting in June. After the meeting, he submitted a report, from which the following is excerpted:

"I attended the DAMOP executive committee meeting on Tuesday, June 13. They voted unanimously to invite us to meet with them on alternate years, beginning in 2002. They agreed to give us 1-1/2 invited sessions. I understood this to mean that we have com-

plete control over one invited session, and that a second session should be organized jointly with them.

In the meantime, I think it is worth reporting that there was also a serious discussion of changing the DAMOP meetings in a substantial way. In particular, it looks like there is a good chance that DAMOP will decide to begin meeting jointly with DLS. From our point of view, this is significant because such joint meetings would happen in the fall rather than the spring. That would make alternating with the April meeting awkward, since it would mean alternating between 6 month and 18 month gaps between our meetings. If the DAMOP-DLS meetings do merge in this way, it cannot happen before 2003, and likely would not start until 2004. Still, however, that would mean that our second scheduled joint meeting with DAMOP would be affected. I don't think this should change our plans, but it is worth being aware of."

The 2002 DAMOP Meeting will be held in Williamsburg, VA, May 29-June 1. The conference chair is John Delos.

Paper on the Adjustment of the Values of the Constants Available

While supplies last, a reprint of the 140-page article "CODATA Recommended Values of the Fundamental Physical Constants: 1998," by Peter J. Mohr and Barry N. Taylor of the National Institute of Standards and Technology, may be obtained from the NIST Fundamental Constants Data Center by sending a request to Michelle Hane at michelle.hane@nist.gov. This paper, published in *J. Phys. Chem. Ref. Data* 28, 1713-1852 (1999) and in *Rev. Mod. Phys.* 72, 351-495 (2000), gives the 1998 self-consistent set of values of the basic constants and conversion factors of physics and chemistry recommended by the Committee on Data for Science and Technology (CODATA) for international use. Further, it describes in detail all of the data avail-

able through 31 December 1998 on which the 1998 adjustment is based, the treatment of the data, and how the complete set of over 300 recommended values is obtained from the subset of constants that are taken as the variables of the adjustment. The new set of recommended values is also accessible from the Web site of the NIST Fundamental Constants Data Center (FCDC) at <http://physics.nist.gov/cuu>, or directly at <http://physics.nist.gov/constants>. A bibliographic database that gives the citations for over 2500 articles relevant to the fundamental constants and closely related precision measurements may also be accessed from the FCDC Web page, or directly at <http://physics.nist.gov/constantsbib>.

Nominations for Fellowship

Topical Group members are invited to nominate candidates for Fellowship in the APS. Our topical group is delegated the opportunity to select approximately two new APS Fellows from nominations submitted to the APS and designated as our topical group candidates. A description of the mechanism for submitting a nomination to the APS and nomination forms are available at <http://www.aps.org/fellowship/index.html>. The deadline for submission of nominations for our unit is 2 April 2001. GPMFC nominations will be reviewed by the 2001 Fellowship Committee, which will be chaired by Blayne Heckel. Please notify Blayne Heckel, heckel@phys.washington.edu, of relevant nominations or intent to nominate someone.

What's in a Name? (Or in an acronym)

The more observant (or precise) among you may have noticed that the name of our Topical Group is sometimes abbreviated as PMFCTG, TG/PMFC, or GFC. This can cause confusion, particularly when searching a meeting program and trying to find the sessions that we organize. Only the last one of the three agrees with the current APS policy that such acronyms begin with a D for Divisions, with a G for a Topical Group, with an S for a Section, and with an F for a Forum. Those of you who are long-time members will remember that the original name of the unit was the Topical Group on Precision Measurement and Fundamental Constants, was changed briefly to the Topical Group on Fundamental Constants and Precise Tests of Physical Laws, and then back to the original name. Thus, for a period, the acronym seems to have been TGFCTPL. The Executive Committee of the Topical Group has requested to the APS that the official acronym be GPMFC, and they seem to be agreeable. Hopefully, this will lead to less confusion in the future.

Current Topical Group Executive Committee

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AMERICAN PHYSICAL SOCIETY

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