

2000/2001 SLAPT Officers

Co-Presidents Gene Allard
..... Frank Cange
Secretary-Treasurer ...David Bross
Web Page Michele Perrin
Newsletter Editor..... Rex Rice

Upcoming Events

NSTA National Convention

When: March 22-25, 2001
Where: St. Louis, MO
<http://www.nsta.org/conv/>

Physics Teachers Reception

When: March 23, 2001
Where: 5206 Washington Place
St. Louis, MO
Host: Michele Perrin

Illinois Section/AAPT Meeting

When: April 20 and 21, 2001
Where: Principia College
Host: David Cornell
Online Registration:
<http://helios.augustana.edu/isaapt/s01/reg-form-m.html>
See flyer in this issue!

AAPT/Metrologic Physics Bowl

Exam Date: April 25, 2001
Application Deadline: April 2, 2001
Online Registration:
<http://www.aapt.org/programs/programs.html>

Physics Day-Six Flags St. Louis

When: Friday, April 27, 2001
9:00 am - 4:00 pm
Where: Six Flags St. Louis
Cost: \$18.99 plus tax
See flyer in this issue!

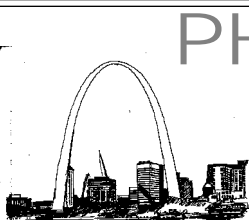
SLAPT Meeting

When: Saturday, April 28, 2001
9:00 am
Where: St. Louis University
Host: Larry Stacey
Details: See article in this issue!

St. Louis University High School Physics Competition

When: Saturday, April 28, 2001
9:00 am - 11:00 a.m.
Where: St. Louis University
Host: Larry Stacey
Details: See article in this issue!

See the SLAPT Web Page
<http://www.nerinxhs.org/physics/SLAPT.html>



PHYSICS

Tempo

The Newsletter of the Saint Louis Area Physics Teachers
an affiliate organization of the American Association of Physics Teachers

Volume 11, No. 2

Spring, 2001

2001 Physics Day at Six Flags--Exclusive Day for Math, Science, and Physics Students

On Friday, April 27, Six Flags St. Louis will host its annual Physics Day. The park will open at 9 am (an hour earlier than usual) to allow more time for students who need to leave early to get their work done. You will get a Teachers Packet with answers to the quantitative questions for the activities in the Student Packet. It will include data and graphs of acceleration and barometric pressure vs time from the "Screamin' Eagle" taken late last year.

For the second year in a row Six Flags has agreed to have a day exclusively for Math and Physics students. This makes Physics Day a time where your students can truly use the park as a laboratory. Line should be reasonable since we won't be competing for use of the rides with other groups or the public. Last year we had 8000 students and teachers. This sounds like a lot, but the lines were quite reasonable depending mostly upon the interest in a particular ride.

We will use "Batman" as our high tech laboratory this year. We used the "Screamin' Eagle" last year with an accelerometer in a vest. This year on "Batman" the vests will have both a barometer and accelerometer for students to check out and wear. They will end up with a printed graph of acceleration vs. time and another of barometric pressure vs time. The addition of the barometer makes it possible for students to determine more specifically their positions on the ride in order to more fully understand the implications of the accelerometer readings.

Several of the rides in the Student Packet have new or rewritten questions. Modifications have been made to make it easier to collect data for some rides while off of the ride. Other changes are the result of suggestions from teachers last spring and this fall. We would encourage you to continue to give us ideas for improving the Student Packet and the experience as a whole.

David and Christine Vernier of Vernier Software have agreed to loan data collection vests, LabPros, accelerometers, and barometers for the day. Please thank them if you run into them at the NSTA convention or next summer at the AAPT meeting.

Six Flags has agreed to purchase about a thousand dollars worth of barometers. This is a true first! Six Flags has now shown a monetary investment in keeping Physics Day going from year to year. We will still need to borrow LabPros, accelerometers, and barometers from any of you willing to participate so we can offer both a barometer and accelerometer with each vest. Six Flags has agreed to repair any items that are lent by physics teachers in the unlikely event that they are damaged in use. Last spring we ran more than two hundred and fifty lab groups through the "Screamin' Eagle" with no damage to any of the lab equipment.

We Need People to Help Run the High-Tech Activities on Batman!

If you are bringing students, and are willing to help for part of the day, or can lend equipment for use on this day, please contact:

Bill Brinkhorst at (w)314-993-4040, (h)636-256-1736, bbrink@jburroughs.org
or Rex Rice at (w)314-726-2575 (h)314-862-2845, rex_rice@clayton.k12.mo.us

**Larry Stacey Receives
2000 Gene Fuchs Award**



Larry Stacey has been awarded the Gene Fuchs Memorial Excellence in Physics Teaching Award for 2000. Larry is a Professor of Physics at Saint Louis University, and has been a major contributor to the St. Louis Area Physics Teachers group for many years. Larry has hosted the April meeting of SLAPT in conjunction with the annual Saint Louis University High School Physics Competition for as long as SLAPT has existed. In that period Larry has run a superb physics competition and has consistently arranged for excellent speakers at the April meeting.

The FuchsAward was presented to Larry at the Fall Meeting of the Illinois Section of the American Association of Physics Teachers. In the photo above, SLAPT co-president Frank Cange (left) is shown presenting the award to Larry (right).

**Nominations Sought for Gene Fuchs
Excellence in Physics Teaching Award**

In the spring of 1995, the St. Louis Area Physics Teachers established the Gene Fuchs Excellence in Physics Teaching Award. At a SLAPT meeting, we agreed that establishing an annual award for excellence in physics teaching, that would serve as a memorial to our friend and fellow physics teacher, Gene Fuchs, who was terminally ill at the time.

Paul Hewitt, of Conceptual Physics fame, designed the graphic which appears on the award plaque. Gene Fuchs was the first recipient of the award in 1995. Since then we have honored Fred Zurheide, 1996; Bill McConnell, 1997; Valerie Michael, 1998; Rex Rice, 1999; and Larry Stacey in 2000. As Valerie Michael said in 1998 when she received the award, "This award means a lot because it comes from you, the members of the Saint Louis Area Physics Teachers." It is time once again to think of whom we wish to honor with this award for the year 2000. Please send your nomination to David Bross on the form below or send it via email to dkbross@aol.com by April 20, 2001.

**2001 Gene Fuchs Excellence in Physics
Teaching Award Nomination Form**

I would like to nominate:

for the 2000 Gene Fuchs Excellence in Physics Teaching Award.

Please send this form to: David Bross
14 Silver Birch Ct.
Wentzville, MO 63385
dkbross@aol.com

**Fred Zurheide Honored by SLAPT
for a Career of Service**

At the fall meeting of the Illinois Section of the American Association of Physics Teachers, the Saint Louis Area Physics Teachers honored Fred Zurheide for his long-term service to our group.

Fred retired at the end of 2000 from his position as Professor of Physics at Southern Illinois University, hosting the 2000 Fall Meeting of ISAAPT as one of his final acts.

Fred has been an inspiration to high school and college physics teachers in the greater St. Louis area. We sincerely hope that he enjoys his retirement and will not be a stranger to the activities of the St. Louis Area Physics Teachers.



Frank Cange (left) presents Fred Zurheide (right) with plaque honoring Fred for a career of service to the teaching of physics.

St. Louis Plays Host to 2001 NSTA National Convention

The 49th Annual National Science Teachers Association Convention will be held March 22 through 25, 2001 right here in St. Louis. This convention will include many presentations which will be of interest to physics teachers. Many St. Louis physics teachers have been instrumental in the planning of this meeting. We hope to see you there

Michele Perrin Will Host a Reception for Physics Teachers during the 2001 NSTA Convention

On Friday, March 23, SLAPT Web Page Editor and Nerinx Physics Teacher Michele Perrin will host an informal reception for physics teachers. This is a chance to meet fellow physics teachers and vendor reps. Special invited guests include David and Christine Vernier of Vernier Software, Herb Gottlieb of Metrologic, and Scott Webb from Texas Instruments.

The reception lasts from 7:00 to 10:00 p.m. and will take place at Michele's home in the Central West End. Michele lives at 5206 Washington Place.

Directions: From I-64 or I-44, exit Kingshighway North. Turn left on Delmar (11 blocks from I-64, about 3 miles from I-44. There is a Taco Bell on the southeast corner). At the first light, turn left on Union and immediately turn left again onto Washington Place. Go down one block to the stop sign. 5206 is on the southwest corner.)

Michele's home phone is 314-361-8814.

AAPT/Metrologic Physics Bowl 2001 Registrations Deadline Nears!

The American Association of Physics Teachers and Metrologic Instruments, Inc. annually sponsor a competition for high school physics students called Physics Bowl. The competition consists of 40 multiple choice questions covering usual high school physics topics. The test will be given under school supervision on April 25, 2001.

The cost is \$2.50 per student, and orders for tests must be received by April 2, 2001. Order forms can be obtained from the American Association of Physics Teachers website at:

<http://www.aapt.org/programs/programs.html>

Metrologic Instruments will award a total of over \$20,000 in scholarships to students competing in two divisions in 15 regions throughout the United States and Canada.

April Meeting of SLAPT and Saint Louis University High School Physics Competition on April 28, 2001

Saint Louis University will host the April meeting of the Saint Louis Area Physics Teachers. As has been the tradition for many years, this meeting will take place while students are participating in the Saint Louis University High School Physics Competition.

At the meeting this year, Saint Louis University Physics Professor Leslie P. Benofy will make a presentation entitled *Some Thoughts Regarding Proton Structure--A recent Undergraduate Research Project*. Over the years, Dr. Benofy has been very successful in directing undergraduate research. This project investigated a simple model for the internal structure of the proton. It was conducted in collaboration with SLU student Brian Fore, who is now completing his first year of graduate school at MIT.

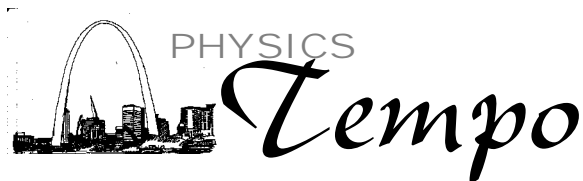
This year marks the sixteenth year that Saint Louis University has hosted its Annual High School Physics Competition. This competition is open to all high school students. Last year, over 220 contestants from 22 schools participated. The competition consists of 50 multiple-choice questions including the topics of mechanics, waves, sound, fluids, thermodynamics, electricity and magnetism, optics, and modern physics.

Saint Louis University will award four cash prizes to individuals: First Prize of \$150, Second Prize of \$100, Third Prize of \$75, and Fourth Prize of \$50. Certificates of Honorable Mention will be given to the next highest scoring twenty percent of the contestants. Additionally, award certificates will be given to the top three scoring schools, based on the sum of the three highest scoring individuals.

The test will run from 9:00 a.m. to 11:00 a.m. followed by a 90 minute lunch break and an award ceremony from 12:30 p.m. to 1:00 p.m. Students will be able to tour McDonnell Douglas Hall during the lunch break. Students are asked to be at the competition by 8:40 a.m. in order to be ready to begin the exam at 9:00.

Larry Stacey, Physics Professor and Physics Department Chair, will be sending a detailed schedule of events along with a sheet for teachers to return listing the names of the students who intend to take the test. He requests that this list be as accurate as possible due to the need to schedule an appropriate number of seats for the competition.

If you have not received the preliminary mailing about this competition from the Saint Louis University Physics Department, you might want to contact Dr. Stacey to be placed on the mailing list. The telephone number for the SLU Physics Department is 314-977-2525. Dr. Stacey can be reached by email at stacey@sluvca.slu.edu.



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 an affiliate organization of the American Association of Physics Teachers

Rex Rice, Physics Tempo Editor
 6051 Kingsbury
 St. Louis, MO 63112
 email: rexrice@swbell.net

Please send David Bross (dkbross@aol.com) your email address today!
If you were a PostNet email customer, please send David your new email address.

Volume 11, No. 2 Spring, 2001

<http://www.nerinxhs.org/physics/SLAPT.html>

The
 Physics Teacher's
 ROLODEX®



Workshops For Physics Teachers

Advanced Placement Physics:

There will be a College Board sponsored AP Physics Workshop on Monday, April 23 at Southern Illinois University at Edwardsville. Contact the College Board at 800-787-7477 for more info.

There will also be a summer AP Physics B workshop at the University of Missouri at Columbia from June 25 through June 30. Contact Wanda Hartssock at 888 878-7732 x 2 for more information.

Modeling Method for High School Physics:

Southwest Missouri State Univ., June 18-July 13
 Technology Infusion in Science through Physics Modeling.

Peer leaders: Julia Eichman and Joel Klammer.

Missouri teachers will receive room and board, and travel reimbursement and 4 hrs of graduate physics credit, tuition free.

For out of state teachers, tuition is \$484 + \$98 fee.

Contact : Dr. Mani K.Manivannan, 417-836-6425
 Dept. of Physics, Astronomy & Materials Science,
 Southwest Missouri State University,
 901 S. National Ave., Springfield, MO 65804-0094

Other Modeling Physics workshop information can be found on the Modeling Physics Website at <http://modeling.asu.edu>

Saint Louis Area Physics Teachers
 MEMBERSHIP APPLICATION

If you have enjoyed the articles or information that you receive in this newsletter, please consider joining the Saint Louis Area Physics Teachers.

Annual dues are \$10 and should be sent payable to:

David Bross
14 Silver Birch Ct.
Wentzville, MO 63385
email: dkbross@aol.com

In addition to the newsletter, you will receive a buzz book of the members of the Saint Louis Area Physics Teachers.

Membership is open to anyone with an interest in improving the quality of the teaching of physics and physical science. You do not have to be a member of the group to participate in the activities, but membership dues make it possible to continue the activities of our organization. Thanks for your support.

If you are not on our mailing list, have information which needs to be corrected, or know of someone who is not on our mailing list but should be, please send the information below to David Bross via regular mail or email at the address above. If you received this newsletter erroneously, please forward it to a science teacher who might find it useful.

 Name

 Home Address City State Zip

 Name of School

 School Address City State Zip

 Home Phone School Phone email address

I prefer to receive *Physics Tempo* at: School Home