

## 2000/2001 SLAPT Officers

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

### Upcoming Events

#### SLAPT Meeting:

##### Physics Day for Physics Teachers at Six Flags

When: September 23, 2000  
8:00 am - 2:00 pm  
Where: Six Flags St. Louis  
Host: Six Flags St. Louis  
Cost: Free including free lunch  
Details: Adv. Registration Required:  
Call Bill Brinkhorst by  
September 19. Each  
physics teacher may bring  
one guest. See article to  
right and on page 2.

#### Illinois Section of AAPT--Meeting

When: October 14, 2000, 8:00 am  
Where: Southern Illinois University  
at Edwardsville  
Host: Fred Zurheide

#### SLAPT Meeting:

##### Make and Take: Laser Diodes for Blackboard Optics

When: November 18, 2000  
9:00 am  
Where: St. Louis Community  
College at Florissant Valley  
Host: Charlie Burkhardt  
Cost: TBA  
Details: Participants will build a  
blackboard optics device  
using laser diodes

#### SLAPT Meeting:

##### Using CBL and LabPro in the Physics Classroom

When: November 18, 2000  
8:00 am to 4:00 pm  
Where: Cor Jesu Academy  
Host: Larry Russell  
Cost: Free

See the SLAPT Web Page  
[http://www.nerinxhs.org/  
physics/SLAPT.html](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. 1

Fall, 2000

### Welcome from the Incoming Co-President

I hope you all had a good summer (but not long enough, right?) We have a good program set up for the coming year's meetings (see the calendar in this newsletter.) I hope that you will be able to come to the Saturday morning meetings, not only for the workshops and sessions but to talk shop with your colleagues. And if you know of a Physics teacher who is not connected with SLAPT, invite them along, because it is always good to share ideas and stuff with teachers who we have not seen before.



If you have any suggestions or input for the group, send it to me at: [gallard@vianney.com](mailto:gallard@vianney.com).  
Sincerely,

Gene Allard

### First SLAPT Meeting for 2000/2001 to be hosted by Six Flags St. Louis on Saturday, September 23 Preregistration is Required--Call Bill Brinkhorst Today!

On Saturday, September 23, 2000, Six Flags St. Louis will host the first SLAPT meeting for the 2000/2001 school year. This meeting will give teachers an opportunity to find out about recent improvements in Physics Day at Six Flags and to try out some of the activities for themselves. If you did not attend Physics Day last year, you are likely to be impressed by the improvements. Six Flags St. Louis will provide free parking, free admission for you and (1) guest, and a free lunch. You will get a chance to ride the rides with an electronic accelerometer strapped to your chest.

We will arrive before the park opens to the public and will get a backstage tour of "Mr. Freeze" and "Batman". We'll return to the group area and have a short explanation of how accelerometers and CBLs were used last spring and what we might do that day. Then we will leave the group area as the park opens to the public and ride/measure/ride/measure. We will have a place set up for you to graph and print your data since you can only save so much on a calculator.

Preregistration is required! (the guard won't let you in if your name isn't on the list)

- Call Bill Brinkhorst before September 19, 2000
- Be sure to indicate whether or not a "guest" is coming
- Bill's phone number is 314-993-4040 X 250. You can access his voice mail at anytime.

continued on page 2, see First SLAPT Meeting at Six Flags

**First SLAPT Meeting at Six Flags**

continued from page 1

**Details:**

**Arrival:**

- Plan to arrive at the park by 8:00 am. The park opens to the public at 10, but we have the tour. The park closes at 8:00 pm.

- As you turn North off of I-44 you will see a sign labeled "Administration". Follow that sign to the guard booth. They will have your name and show you how to get into the main parking lot.

- Go to the "Group Sales" office which is just outside the main gate. The people there will also have your name and will let you in and show you where we will be meeting.

**What to bring:**

- calculator (a TI-82, TI-83, or TI-83 plus)

- CBL or LabPro

- Vernier accelerometer (preferably a low-g)

- Barf Bag **Æ** OOPS, just kidding!!

If you don't have a calculator, CBL or accelerometer, don't worry, we will try to have extras. If you have more than one of the above items, please consider bringing your extras for those who might not have this equipment.

Last spring, entrance to the park was limited to Physics, Physical Science, and Math students and it worked out wonderfully. The lines for the rides were much shorter than in previous years. The box lunch helped because there wasn't a line. You could just walk in and eat. I sold it to my kids as a time saver that would allow them more time on the rides.

There was an area with tables, on the way up to the "Screaming Eagle" where we traded CBLs for student's drivers licenses. When they got to the platform in about 10 minutes they got an accelerometer and a vest to put it all into. As students left the Eagle they were able to trade the CBL for their license. We had a lot of volunteers help with the computers and printers and each student received a printout of their data. We have will have copies of a lot of that data at the park on the 23rd for you to take home with you as well as a copy of the recently revised activity book.

We are considering using the accelerometers on "Batman", instead of "The Screaming Eagle", next year. We would like your input. We are also trying to put together an often requested "Teacher's Manual" with expected answers and results, and will use the results of your work on the rides as a basis for such a manual.

This promises to be a fun and educational day at the amusement park. Hope to see you there!

**A Tribute to a Fallen Colleague**

The physics teaching community of the greater St. Louis area has recently lost a valued member. James C. Harpel, Jr., physics teacher at Ladue High School, lost a two-year battle with colon cancer on August 25, 2000. Jim will be remembered by all who knew him as a true gentleman and a very nice person. He will be remembered by those fortunate enough to have him as a physics teacher as an excellent one. Characteristic of Jim's sense of humor, his obituary in the St. Louis Post-Dispatch read "Jim has taken permanent leave of absence from teaching physics at Ladue High School to go fly fishing with St. Peter."

In a tribute to Jim delivered to the faculty of Ladue Horton Watkins High School, Brad Heger said:

"We knew Jim as a family man, a loving spouse and father. His devotion to Cindy, and to Trey and Kimberly, was clear in every decision he made, and in every word he spoke about them.

We knew Jim best, of course, as a talented colleague, and an outstanding educator and teacher. He has been "cutting edge" for technology in the district for a long time, and has worked extensively with the technology committee and with the professional development committee on many different projects, and chaired many of those projects.

Jim never stopped teaching, both in the classroom and out. I'll never see a bowling ball without thinking of Jim's "pendulum bowling ball" physics experiment. In this experiment you suspend a bowling ball from the ceiling, pull it back, and release it from in front of your chin. Jim taught me it will not swing back higher than the distance it was released from.....Unless you pushed it.

Two years ago, when Jim found out the reason he "felt so punk," as he put it, he taught us about his illness. He taught us it was OK, even imperative, to speak the words "colon cancer."

Jim taught us with his dignity, his courage, his directness. He taught us with his dedication to his students, and to his colleagues. He scheduled his treatments on Friday afternoons so that he could recover enough from the chemo poisons to be able to teach his classes on Monday. Up until the last semester of his fight, Jim missed less school than most of the rest of us did. Even in that last semester, he would turn down painkillers so that he could keep his mind clearer for his students.

Jim, we all loved you, but probably not so well as you loved us. Thanks, buddy!"

**Local Events of Interest to Physics Teachers**

**Tentative 2000/2001 Calendar of St. Louis Area Physics Teachers Events**

- Sept 23: The New Improved Physics Day  
at Six Flags St. Louis  
Host: Six Flags St. Louis  
Time: 8:00 am to whenever you choose to leave  
Place: Six Flags St. Louis  
Details: Free admission, 1 guest per teacher, free lunch, fun with CBLs and accelerometers. Must register in advance. Call Bill Brinkhorst at 314-993-4040 X 250 before Sept. 19.
- Oct 14: Illinois Section AAPT Meeting  
Host: Fred Zurheide  
Time: 8:00 am  
Place: SIUE
- Nov 14: Make and Take--Laser Diodes for Blackboard Optics  
Host: Charlie Burkhardt  
Time: 9:00 am  
Place: Florissant Valley Community College  
Cost: TBA
- Dec 2: Using CBL and LabPro in Physics Classes  
Host: Larry Russell  
Time: 8:00 am to 4:00 pm  
Place: Cor Jesu Academy
- Feb 10: PTRA Workshop: Ripple Tanks  
Host: Debbie Rice  
Time: 8:30 am to 12:30 pm  
Place: Gateway Institute of Technology  
Cost: TBA
- Mar 24: National Science Teachers Association National Convention
- Apr 28: St. Louis University High School Physics Competition and SLAPT Meeting  
Host: Larry Stacey and SLU Physics Department  
Time: 8:00 am to 1:30 pm  
Place: Saint Louis University

**Washington University to Host "Physicists of the Century" this Fall**

- On five Saturdays this fall, from October 7 to November 4, the physics department of Washington University will host its Science Saturday series with a theme of "Physicists of the Century." Admission is free. These lectures will be held in Room 201 of Crow Hall at Washington University from 10:00 am to 11:30 am.
- Oct 7: Niels Bohr, Werner Heisenberg, and Erwin Schrodinger. Host: Michael Ogilvie  
Oct 14: Albert Einstein. Host: Clifford Will  
Oct 21: Richard Feynman, Host: Carl Bender  
Oct 28: Edwin Hubble, Host: Michael Friedlander  
Nov 4: Stephen Hawking, Host: Matt Visser

**St. Louis Astronomical Society Meetings**

The St. Louis Astronomical Society will hold monthly meetings this fall on September 15, October 20, and November 17. Each meeting will be held at 7:30 pm at McDonnell Hall at Washington University.

**Workshops for Science Teachers at St. Louis Science Center**

- Oct 14: "Engineering the Future of Engineering"  
Host: Alice Walker, 314-286-4617  
Time: 8:30 am - 3:00 pm  
Place: St Louis Science Center, Meeting Rooms ABC, Lower Level  
Cost: free, but must apply for invitation
- Oct 21: "Solutions for Physical Science Teaching"  
Host: MaryAnn Morgan, 314-533-8973  
Time: Session I: 9:00 am - noon  
Session II: 1:00 - 4:00 pm  
Place: St Louis Science Center, Meeting Rooms ABC, Lower Level  
Cost: \$17.50
- Oct 28: "Star Station One&trade; Teacher Workshop"  
Host: MaryAnn Morgan, 314-533-8973  
Time: 9:00 am - 1:00 pm  
Place: St Louis Science Center, Meeting Rooms ABC, Lower Level  
Cost: \$5.00 (includes a snack)



# PHYSICS

# Tempo

The Newsletter of the Saint Louis Area Physics Teachers  
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](mailto:rexrice@swbell.net)

**Please send David Bross ([dkbross@aol.com](mailto:dkbross@aol.com)) your email address today!**

**Volume 11, No. 1 Fall, 2000**

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

## The Physics Teacher's ROLODEX®



### Good Books for Physics Educators

#### Teaching Introductory Physics

Arnold B. Arons, 1997, John Wiley and Sons.

This book is a must read for anyone who teaches introductory physics. It is based on the results of the physics education research of the past twenty years, and has the potential to significantly affect your thoughts about physics teaching.

#### Peer Teaching, A User's Manual

Eric Mazur, 1997, Prentice Hall, Inc.

This rather short book describes a method for teaching physics in which students are interactively engaged in the learning of physics, even in large lecture settings. Includes ConcepTests for a full-year introductory course in printed and electronic form.

## 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](mailto: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