

# The Dialog

The Newsletter of the Southern Ohio Section of the American Association of Physics Teachers  
September 2000

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## SOS/AAPT Fall Meeting

Saturday September 30, 2000  
Celina High School  
715 East Wayne Street  
Celina, Ohio 45822  
8:00 a.m. – 5:00 p.m.

The host for the meeting is Tim O'Donnell.

### CALL FOR CONTRIBUTED PAPERS

Abstract submission deadline is 5:00 p.m., September 23, 2000.

Contributed papers dealing with original research, the teaching of physics, or physics and society are solicited. Faculty are urged to encourage undergraduate and graduate students to present papers. Ten-minute oral presentations with two minutes for questions will be scheduled in parallel sessions on Saturday morning. Overhead projectors and chalkboards will be available. Other AV equipment is available – please submit request with abstract. Tim would prefer the abstract be sent electronically to [odonnt@celina.k12.oh.us](mailto:odonnt@celina.k12.oh.us). However, they can be mailed to: Tim O'Donnell, Celina High School 715 East Wayne Street, Celina, Ohio 45822.

### Major Sessions:

1. Ruth Howes- “AAPT in the 21<sup>st</sup> Century” Ball State University, Muncie, IN 47306  
[rhowes@bsu.edu](mailto:rhowes@bsu.edu)  
As we begin a new century, physics is changing; the workplace is changing; and the students in our classrooms are changing. These rapid shifts in the educational environment present both opportunities and challenges for physics teachers. AAPT has launched an effort to identify the critical issues of this new century. At a retreat before the August meeting in Guelph, the Executive Board began to define AAPT's vision, its mission, the critical issues we face, and the actions AAPT should take during the next five years. We have made a beginning, and now we need the input of all members to chart a course for AAPT in the first years of the 21<sup>st</sup> century.
2. Dave Maloney- Indiana-Purdue at Fort Wayne “Conceptual Understanding of Magnetism: Issues and Ideas”. Physics Education Research (PER) is starting to provide insights into students' thinking about the domain of magnetism. These findings raise a number of interesting questions about our current approaches to teaching this topic. In this talk Dave will briefly review some of the findings, identify some of the questions/issues raised by the findings and then describe some ideas about how we might alter our approaches to teaching this topic.

3. Fred Thomas- Sinclair College, SAM (Science and Math) Workshop.  
Using graphing calculators in realistic control projects, much as scientists, mathematicians, engineers, and technicians use embedded computers to control the operation of automobiles, hospital instruments, home appliances, and industrial machinery. Modern calculators are now more powerful than the desktop computers of a few years ago, and they are particularly well suited for learning about real-world applications of mathematics and science. Input to the calculator can now come from a wide range of sensors, and the control circuit described here makes it possible for the output of the calculator to run motors, buzzers, lights, solenoids, and a variety of other real devices. The calculator is the CPU that links the inputs to the outputs, programmed in the language of mathematical functions. **One change**, however, is that this is no longer just “CALCULATOR-bases control systems.” The new CBL II and Vernier’s LabPro both work with computers as well as with calculators. Fred plans to put the emphasis on the LabPro.

People need to sign up and pay \$10.00 for this workshop. Limit is 24. 1:30 p.m. – 4:30 p.m.

### **Driving Directions to Celina High School, 715 E. Wayne St., Celina, OH 45822**

**From the north** – Take State Route 127 South to Wayne Street (State Route 197) turn left. Continue on Wayne Street. High School will be on the left.

**From the south** – Take State Route 127 North to Wayne Street (State Route 197) turn right. Continue on Wayne Street. High School will be on the left.

**From the west** – Take State Route 29 East. State Route 29 East joins with State Route 127 North. Continue on State Route 127 North to Wayne Street (State Route 197) turn right. Continue on Wayne Street. High School will be on the left.

**From the east** – Take State Route 29 West to Havemann Road (Near a Wal-Mart). Turn right. Continue on Havemann Road until it dead-ends into Wayne St (State Route 197). Turn left. Continue on Wayne Street. High School will be on the right. If you plan to use I-75 the exit number to get off is 110. This is State Route 33. Go west towards St. Marys. State Route 33 exits to the right near St. Marys and the highway becomes State Route 29.

Use mapquest.com and type in the school address. Print off the map on your own. We are not allowed to put it in the Dialog.

**Parking at Celina High School** – There are large lots on the east side and the west side of the building and a smaller lot in front of the building. You may park in any of these lots.

### **Lodging**

Listed in AAA Tour Book

Comfort Inn – Celina	419-586-4656
Holiday Inn Express – Celina	419-586-4919

Not listed in AAA Tour Book

Celina Motel	419-586-2343
Cole’s Motel	419-586-3138

### **Tentative Schedule**

8:00 a.m. – 1 p.m. Registration  
8:00 a.m. – 4 p.m. Commercial exhibits  
9:00 a.m.- 10:00 a.m. Welcome and Contributed Papers  
10:00 a.m. – 11:00 a.m. Invited Speaker Ruth Howes  
11:00 a.m. – 12:00 a.m. Invited Speaker Dave Maloney  
12:00 a.m. – 12:30p.m. How I Do It/Business Meeting/ Door Prizes  
12:30 a.m. – 1:30 p.m. Lunch  
1:30 p.m. – 4:30 p.m. Parallel Workshops and Sessions

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**ABSTRACTS OF CONTRIBUTED PAPERS FROM THE SPRING MEETING AT THE  
UNIVERSITY OF CINCINNATI**

By Jim Sullivan