

Ontario **A**ssociation of **P**hysics **T**eachers
11th Annual Conference
U.W.O., London
25-27 June, 1989
PRELIMINARY PROGRAM

SUNDAY, JUNE 25, 1989

HOLOGRAPHY WORKSHOP

This workshop will be conducted from 2:00 pm till 5:00 pm by Dr. Tung Jeong, Lake Forest College, Lake Forest, Illinois. The workshop will be held in Room 115 of the Physics and Astronomy Building. In order to participate in this workshop you must have preregistered for it.

HOSPITAL TOURS

Three hospital tours are available for Sunday evening. Enrollment in each is limited so you should sign up for one when you check in to the residence hall or during the Holography Workshop. The tours are all at St. Joseph's Hospital and are as follows:

- Ultrasound and CAT scanner
- Nuclear Medicine
- NMR Spectrometer

All tours are scheduled to begin at 7:00 pm. Exact locations will be announced.

MONDAY, JUNE 26, 1989

- 08:45 Welcome in Room 137, Physics and Astronomy Building.
- 09:00-10:00 "Science R Us" by Bill Reitz, Cuyahoga Falls, Ohio. A demonstration of how toys can be used to teach concepts in science.
- 10:00-10:15 "How I teach Centripetal Force" by John Beach, Navarre, Ohio. An illustration of how centripetal force can be taught with the aid of an easily assembled turn table.
- 10:15-11:00 Refreshment break and Exhibits by scientific suppliers and publishers in Room 123 P & A Building.
- 11:00-11:45 "Room Temperature Fusion" by Dr. Innes MacKenzie, University of Guelph. An update on the sensational science controversy of 1989.
- 11:45-12:00 "Room Temperature Fusion in Secondary School?" by Andrew Blaber, White Oaks Secondary School, Oakville. A description of the attempts he and his students have made to actually perform the Pons and Fleischman experiment.
- 12:00-12:15 "Light Wave Communication for under \$50" by John Pitre, Univ. of Toronto. A demonstration of a low cost laser communicator developed by an undergraduate student at the University of Toronto.
- 12:30-2:00 Lunch in Delaware Hall. Visit the Exhibits in Room 123 P & A Bldg. Visit with your friends and make some new ones!
- 2:00-3:00 "Motivating Students in Science" by Larry Butt, Stratford. An illustration of a number of techniques that can be used to motivate students in science.
- 3:00-3:15 "An alternate approach for starting a physics course" by John Reichert, State Univ. of New York, Buffalo. Showing how a physics course can begin with the conservation laws instead of with mechanics.
- 3:15-4:00 Refreshment break and Exhibits by scientific suppliers and publishers in Room 123 P & A Building.

- 4:00-4:15 "Using light wave technology to measure force" by Walter North, University of Windsor Mechanical Engineering Department. A demonstration of a simple transducer that can readily be built in a secondary school machine shop. This transducer when used with a laser and a single slit can be calibrated to measure force and other physical quantities.
- 4:15-4:30 "Probing Societal Impacts of Science and Technology" by P. J. Spratt and Associates. A preview of a new resource being developed for science teachers.
- 4:30-5:30 "Model Rocketry" by Taras Tataryn from 'Spacebound' and Paul Woloszanskyj from Toronto Metro Separate Board. A look at the latest available resources for rocketry including telemetry involving computers.
- 7:15 pm Annual Banquet/Barbecue on the patio at Delaware Hall.
- 8:00 pm Dr. Tung Jeong of Lake Forest College, Lake Forest Illinois will give us an insight into the impact light and light wave technology is presently making and promises to make in the next decade.

TUESDAY, 27 JUNE, 1989

- 9:00-10:00 "Teaching General Level Physics" by Bill Tallman, Saunders Secondary School, London. A look at successful teaching strategies for general level physics.
- 10:00-10:15 "Dividing by Vectors" by J. Huschilt and W. E. Baylis, University of Windsor. The algebra of 3-dimensional vectors (the 'Pauli algebra') will be introduced and used to simplify a couple of common mechanics problems: projectile motion and motion of a charge in a magnetic field.
- 10:15-11:00 Refreshment break and last chance to visit the exhibits by scientific suppliers and publishers in Room 123 P & A Building.
- 11:00-11:20 "Canadian Physics Olympiad 1989" by John Wylie, Toronto French School. A description of the 1989 Olympiad.
- 11:20-11:35 "Math CAD" by Paul Zitzewitz, University of Michigan, Dearborn. Math CAD has been used in a junior/senior laboratory course of data analysis and display, mathematical explorations, and report writing. Successes and failures from both student and faculty view points will be discussed.
- 11:35-11:50 "The new Sun Scope" by John Daicopoulos, Science North, Sudbury. A brief description of their new 'Sun Scopes'. These are hassle-free solar telescopes used in their school programs on the sun, as well as part of their telescope loan program. They use a very innovative and safe design.
- 11:50-12:05 "OAPT Contest" by George Kelly, Guelph. A report on the 1989 physics contest. Results and trends will be presented and discussed.
- 12:05-12:15 "My Favorite Demonstration-making sound visible" by Bill Konrad, Kent County Board of Education. How to see standing waves of sound.
- 12:15-1:30 pm Lunch in Delaware Hall.
- 1:30-4:30 Electrostatics Workshop conducted by Bill Reitz, Cuyahoga Falls, Ohio. The workshop will be held in Room 115, P & A Building. In order to participate in this workshop you must have preregistered for it.
- 1:30-2:30 Tour of the Boundary Layer Wind Tunnel. A tour for a small group (no more than 15) register for this when you pick up your registration materials.

