



American Association of Physics Teachers  
**AAPT Ontario Section**  
**NEWSLETTER**

Vol. 9 #4

**NINTH ANNUAL - AAPT-Ontario - CONFERENCE**

**Sunday, June 21st - Tuesday, June 23rd**

**Sudbury**

Arrangements for the June Conference are proceeding well. The committee organizing the conference thinks that physics instructors attending will have a good time!

Here are some of the highlights:

- a "Path of Discovery" **bus tour** of the Sudbury Basin and Big Nickel mine. [For those that want the tour on the geology and physics of the Sudbury region, we have arranged a coach and tour guide. The tour starts at 1:30 PM SHARP starting from the Laurentian University residence and lasting until 5:30 in the afternoon. If you are going on the tour then you will be going down a mine shaft at one point in the afternoon.]
- a three day **pass to Science North**...our science center of the north. See the exhibits, and talk to the knowledgeable staff.
- **reception** at Science North and a **boat tour** on Lake Ramsey. We have made arrangements for a reception at Science North. It will start at 7:30 in the evening. You get a one hour boat ride on Lake Ramsey if you attend the reception, seeing Sudbury by twilight from the point of view of the lake.
- **informative speakers**
  - Doug Hallman - Doug Hallman, a physicist at Laurentian has participated extensively in the **proposed Sudbury neutrino observatory** to be implemented near Sudbury in one of the deepest mine shafts of the world. He will be explaining and describing this exciting project. This is sure to be interesting because of the results of other neutrino observatories with the recent supernova.

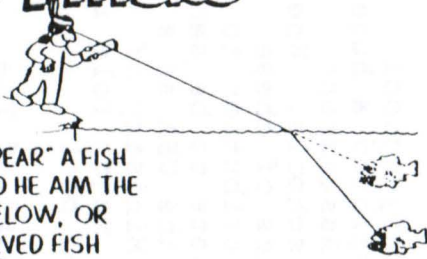
- Peter Hinrichsen - Peter Hinrichsen, a physics instructor from Montreal, is a teacher with lots of sailing experience. He will be talking about various applications of **physics to sports**: golfballs, baseballs, and sailboats.
- Brian Kaye - Brian Kaye is another professor at Laurentian University, well known for his research in the physics of fine particles. His talk at the conference will be "**A Random Walk Through Fractal Dimensions**". This could prove interesting to any who have wondered what fractals are and whether they have any role in science or physics. His talk is sure to motivate us to program computers to draw our own fractals!
- Dave McKay - Dave McKay, head of science at M.M. Robinson H.S., Burlington, is currently seconded to TVO. He is helping TVO integrate its current and future programming to the new Ontario Science Guidelines. He will be talking on **how TVO can be used in our classrooms with the new physics curriculum**.
- Tom Semadeni - Tom Semadeni is the Director of Science North. He will describe Science North's structure and function.
- George Vanderkuur - George Vanderkuur is the chief scientist with the Ontario Science Center. Recently he has spent time and thought on the applications of science in art. He will be talking on "**Physics in Art**". Scientists and artists have a lot in common; such things as creativity, appreciation of patterns, a need for simplicity and elegance etc. George will be describing and demonstrating nature as both artlike and scientific at the same time.
- a special **banquet at the Science North** and talk by **Bjarni Tryggvason, a Canadian Astronaut** on our Space Team, in the Science North cavern. Bjarni will be talking on the current state of space technology and research.
- **demonstrations and short talks** by physics teachers on topics they have found interesting and effective in their teaching
- an opportunity to **meet publishers and suppliers** of science equipment

In addition to these highlights here is your chance to see Science North, Laurentian University and its physics labs, and to meet with people who teach the same thing you do.

There is still time to register if you hurry! Mail the registration form provided with this letter.

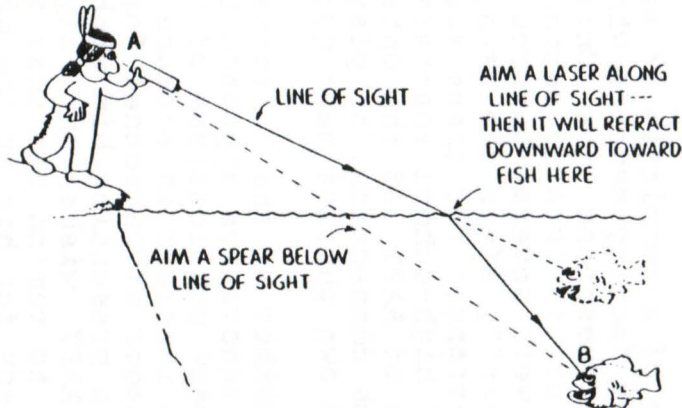
If you want further information please phone Pete Levan in Sudbury, (705) 522-1828 [home] or (705) 522-1750 [school].

# Figuring Physics



TONTO WISHES TO "SPEAR" A FISH WITH A LASER. SHOULD HE AIM THE LASER BEAM ABOVE, BELOW, OR DIRECTLY AT THE OBSERVED FISH TO MAKE A DIRECT HIT?

ANSWER:

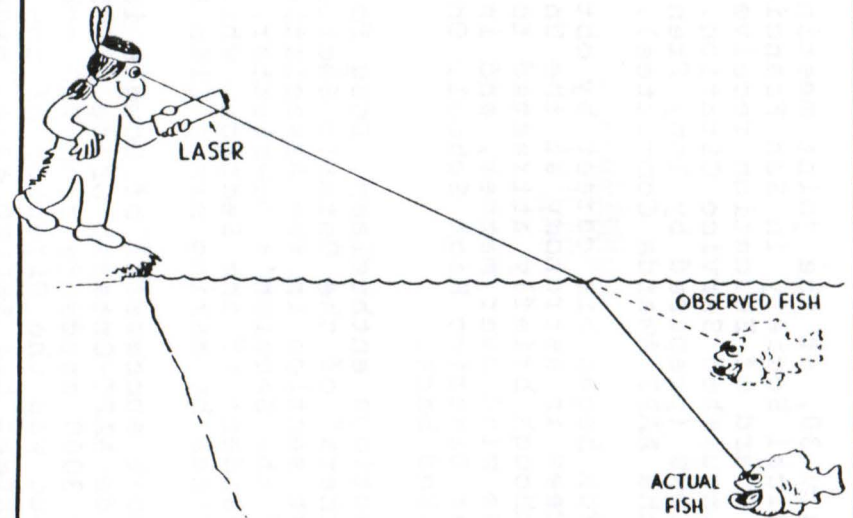


TONTO SHOULD AIM DIRECTLY AT THE FISH HE SEES. IF HE WERE INSTEAD THROWING A SPEAR, HE'D HAVE TO COMPENSATE FOR THE REFRACTION OF LIGHT AND AIM BELOW THE OBSERVED FISH. BUT NOT IF THE "SPEAR" IS A LIGHT BEAM! A LIGHT PATH IS REVERSIBLE, AND WILL GO FROM A TO B ALONG THE SAME PATH IT TAKES FROM B TO A.

Hewitt  
Drewitt!

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Hewitt  
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## Doug Fox Receives Distinguished Service Citation from AAPT

On January 30, at the joint meeting of the AAPT and the American Physical Society in San Francisco, Doug Fox of the Essex County Board of Education received a prestigious award: an AAPT Distinguished Service Citation. The text of the Citation follows (prepared by Tony French of M. I. T., Chairman of the AAPT Awards Committee).

"Douglas R. Fox began his career by obtaining bachelor's and master's degrees in astronomy at the University of Western Ontario. Although briefly attracted to the world of finance, he nobly chose mind over matter, and in 1971 became a teacher at Belle River District High School, Ontario; since then he has never looked back.

With his infectious enthusiasm, Doug Fox was one of the true "Founding Fathers" of the Ontario Section of the AAPT (now the second largest section in the Association); he also created and published the Section's Newsletter. During 1980-81 he served as President of the Section, which has since honored his many services by making him a Life Member.

Perhaps the most successful of Doug's ideas was the creation of a province-wide AAPT-Ontario Grade 11 Physics Contest, in which approximately 3000 students from 250 schools now participate annually. Doug was the Director of the contest from 1981 to 1984. The contest has served as an excellent vehicle for promoting physics in Ontario secondary schools, and also for improving the visibility of AAPT-Ontario. In 1985 and 1986 the national AAPT operated a contest, modelled on Ontario's, which will reach across North America and into many foreign countries.

Doug was also a member of a committee of secondary-school teachers and university faculty members who developed a huge set of multiple-choice questions (the "Ontario Assessment Instrument Pool") for use in Ontario secondary schools. When he learned that there were several hundred copies of these question sets "left-over", after the usual distribution to Ontario teachers, he arranged for these spare sets to be sent to a selection of AAPT high-school teachers in the USA as a gift of the Ontario Section of AAPT and the Ontario Ministry of Education. In the same connection, he played a major role in the creation of AAPT's own physics test question pool.

Doug has served as a member of the Editorial Board of The Physics Teacher. His innovative approach to physics teaching has also resulted in many publications of his own. Beyond this, however, he has a deep interest in science education at all levels, and is now Manager of Personnel for the Essex County Board of Education. In presenting him with a Distinguished Service Citation, the AAPT wishes not only to thank him for past services but also to remind him that there will always be an honored place ready for him in the classroom."

# Registration Form - AAPT (Ontario) Section - Sudbury June 21-22-23, 1987

[PLEASE PRINT]

Name (Mr/Miss/Mrs/Ms) \_\_\_\_\_  
Surname First Name

Home Address \_\_\_\_\_  
No. Street City Postal Code

Business Address \_\_\_\_\_  
Institution

\_\_\_\_\_ No. Street City Postal Code

Home Phone \_\_\_\_\_ Business Phone \_\_\_\_\_

**Membership (\$5.00):** Membership includes a newsletter published four times a year and reduced rates to the annual conference.

I wish to renew my membership for the year 1987-88. [ ]

I wish to become a member for the first time. [ ]

Secondary School [ ] University [ ] College [ ] Other [ ]

**Program, Meal, and Accommodation Packages:**

Package A - Includes Banquet and keynote speaker (Note: This amount isn't deductible or refundable from other packages.)

Members \$25.00 [ ] Non-members \$35.00 [ ]

Package B - Includes Package A, conference registration, Sunday evening dinner, Sunday evening reception at Science North, breakfast and lunch both Monday and Tuesday

Members \$80.00 [ ] Non-members \$90.00 [ ]

Package C - Includes Package B, and a residence room for Sunday and Monday nights (Note: If you wish motel instead of residence accommodation then the Travelway Inn, just across the road from Science North, accepts reservations (705) 522-1122.)

Residence Accommodation:	Single Occupancy	Double Occupancy
Members	\$140.00 [ ]	\$130.00 [ ]
Non-members	\$150.00 [ ]	\$140.00 [ ]

If you specify double occupancy then please give the room mate's name.  
\_\_\_\_\_

Package D - 3 hour "Path of Discovery" bus tour of the Sudbury Region

Members \$10.00 [ ] Non-members \$15.00 [ ]

**Total Fees:**

Membership \$ \_\_\_\_\_  
 Package A or B or C \$ \_\_\_\_\_  
 Package D \$ \_\_\_\_\_  
 Total \$ \_\_\_\_\_

Send this form by **June 5th** with your money order or cheque, payable to "AAPT-Ontario" to

Peter Levan  
232 Walford Rd. E.,  
Sudbury, Ontario  
P3E 2C8

**Abstract Form - AAPT (Ontario) Section - Sudbury  
June 21-22-23, 1987**

We are eager to have you make a short presentation at the conference. Your presentation could take the form of a short talk with or without AV equipment or physics apparatus, on a topic of interest to you, or it could take the form of a demonstration that you use in teaching physics.

[PLEASE PRINT]

Name (Mr/Miss/Mrs/Ms) \_\_\_\_\_  
  Surname  First Name

Home Address \_\_\_\_\_  
                    No                    Street                    City                    Postal Code

Business Address \_\_\_\_\_  
  Institution

\_\_\_\_\_  
                    No                    Street                    City                    Postal Code

Home Phone \_\_\_\_\_ Business Phone \_\_\_\_\_

**Session:**

Oral presentation [ ] (5 to 15 minutes)  
My Favourite Demonstration [ ] (2 to 5 minutes)

**Title of Presentation:** \_\_\_\_\_

**Short description or abstract:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Required Equipment:**

We can provide AV equipment. We may provide microcomputers or other support equipment such as VCRs. For demonstrations, some technical help will be available.

Please check or list your requirements.  
[ ] slide projector            [ ] overhead            [ ] 110 V(AC)  
[ ] other \_\_\_\_\_

Send this form by **May 22** to

Peter Levan,  
232 Walford Rd. E.,  
Sudbury, Ontario  
P3E 2G9