



What is THIS?

This newsletter is the first in an infinite series of newsletters produced by the executive of AAPT-Ontario with the purpose of providing items of interest to Physics teachers in Ontario. Newsletters will be distributed every three months or so, or whenever the executive has culled sufficient material.

You can help us. Let us know if you have attended an exciting conference, read a good book, seen an interesting film. Write a short note about the conference etc. and it will be included in the next newsletter.

Grade 11 Prize Exam

At the business meeting of our June conference, it was suggested that AAPT-Ontario sponsor a Physics Contest for grade 11 students. Plans have already been started in this regard. The hope is that the contest will stimulate interest in Physics in students at that level, act as a primer for grade 13 contests, provide reward for achievement, and, from our point of view, publicize AAPT-Ontario throughout the province.

The exam will consist of approximately 20 questions which will be based on the curriculum suggested by the Ministry of Education. It will be available to students who are currently enrolled in grade 11 or who just finished in the previous semester. The exam will take place in late or middle May. We hope to be able to provide at least a certificate to the winner and runner-up in each school, and larger awards for province-wide winners. If we can receive financial backing, say from industry, our visions of more prestigious awards for each school (e.g., plaques, calculators) may be realized.

For this first year (Spring, 1980) we are going to have a trial run of the test, in order to get the "bugs" out of the logistics. If you are a secondary school teacher and are interested in having your students participate in the trial run and/or subsequent contests, please reply to the questionnaire included with this newsletter. If you are willing to participate in the creation of the test, or willing to be part of the administrative organization, just write Doug Fox a note (see questionnaire for address).

Membership Blitz

There are now 200-odd members in AAPT-Ontario. If we may judge from the response at our June meeting, our Section is serving a useful and vital need. Let's tell our colleagues. We need a membership blitz!

Phase one of the attack was completed months ago when letters describing AAPT-Ontario were sent to all Secondary Schools, Colleges, and Universities in Ontario. It is now time for phase two: a one-on-one attack by each of our members. Surely you know a colleague who would enjoy membership in AAPT-Ontario. A blank membership application is included with this newsletter; fill it out in your colleague's name, and the next time you see him/her, ask for a dollar and mail both (the dollar and the application, not the dollar and colleague) to Doug Cunningham (address on application.)

We hope to double our membership by June, 1980. It can be done if you will help to spread the word.

By the way, your membership is good until June, 1980.

Your Executive

If you did not attend our inaugural meeting in June, you will be unaware of the results of the election of the executive. If you have ideas regarding directions in which AAPT-Ontario might go, please let any of the executive know.

President	Ernie McFarland Department of Physics University of Guelph Guelph, Ontario N1G 2W1
Vice-President	Douglas R. Fox Belle River D.H.S. 333 South Street Belle River, Ontario NOR 1A0
Secretary-Treasurer	Douglas Cunningham Bruce Peninsula D.S. P.O. Box 178 Lion's Head, Ontario N0H 1W0
Section Representative (to the Nat'l. AAPT)	T. Dean Gaily Department of Physics University of Western Ontario London, Ontario. N6A 3K7
Member-at-Large	Jim Stevens Assistant Vice-President, Academic University of Guelph Guelph, Ontario N1G 2W1

Annual Meeting - June, 1980

Plans are now being made for our second annual conference. We hope to hold it at Trent University in Peterborough on either June 13-14 or June 20-21. Both of these are a Friday-Saturday combination, which seemed to work well this year. Which of the two pairs of dates is better for you? Fill out the attached questionnaire and return it (as soon as possible so that arrangements at Trent can be finalized) to Doug Fox, who, as Vice-President of our Section, is Conference Chairman.

"Forgotten Fundamentals of the Energy Crisis"

Remember Al Barlett's superb presentation at the banquet at our June conference? It is available on colour videotape (55 minutes) from Mr. D. Space, Educational Media Center, Stadium 310, Box 379, University of Colorado, Boulder, Colorado 80309, U.S.A. The tape may be purchased for \$52.00 (U.S.) for 3/4" U-Matic Cassette, \$40.00 (U.S.) for 1/2" Beta-Max Cassette or 1/2" VHS Cassette, or \$46.00 (U.S.) for 1/2" Reel to Reel.

Alternatively, you may borrow the University of Guelph's copy (3/4" U-Matic Cassette) by contacting Ernie McFarland, Dept. of Physics, University of Guelph. If you require 1/2" reel to reel, you may borrow a copy from Ray Jones, Quinte Secondary School, 45 College Street West, Belleville.

The paper on which the tape is based (or is it the other way around?) was published in the American Journal of Physics, 46 (9), Sept. 1978, 876-888.

(a condensation of the Ontario Section News in the "AAPT Announcer", by Dean Gaily)

The first meeting of the Ontario section was held June 15 and 16, at the University of Guelph. Attended by more than 80 members of the section, the meeting was highlighted by the after-banquet speech by Al Bartlett, University of Colorado, Boulder, "Forgotten Fundamentals of the Energy Crisis". The meeting began with a panel discussion of "Grade 13 Physics Curriculum". The panel members developed an active dialogue on the physics curriculum in Grade 13 and the influence of the STAO document on the physics core curriculum for Ontario Secondary Schools. Two sessions of contributed papers followed covering topics on high school course descriptions, PSI in University courses, astronomical observations, home lab projects, cartoons in the classroom, the TAO of physics, computers in the lab and simple demonstrations in physics.

In celebration of the centenary of the birth of Einstein, Warren W. Johnson of the University of Rochester spoke on "Gravitational Waves and Their Detection". This invited talk reviewed the history of gravitational wave ideas beginning with the General Theory of Relativity and summarized the work to date on the detection of such waves. The current work at Rochester was outlined and the audience was left with a feeling of excitement for this very current area of research.

At the business meeting of the section the newly elected officers were introduced and the important contributions to the founding of the Ontario Section by George Kelly and Ernie McFarland were applauded by those present. A discussion of the aims and goals of the section followed with numerous ideas being aired and noted by the new executive.

Saturday's session began with the invited paper "A Survival Kit of Demonstrations for Physics Teachers" by George Vanderkuur, Ontario Science Centre, Toronto. No one present will forget the hair raising experience of George's vortex generator gun and all were thrilled by his "bubble inside a bubble inside a bubble". A session of contributed papers followed covering mini projects in high school courses, PSI tutors, solar energy, test items, eclipse photographs and the Physics Challenge Competition.

"Optics in the Sky" by Jim Hunt, University of Guelph, encouraged all in attendance to seek sun dogs and solar halos among other phenomena associated with sunlight refracted or reflected from atmospheric ice crystals. Jim's talk included spectacular lecture room demonstrations and was widely enjoyed. The meeting ended on a participatory note as five or six people contributed a short presentation of their favorite demonstrations.

(continued in next column)

The success of this first meeting was widely acknowledged and the efforts of the conference organizers were deeply appreciated by all attendees.

Upcoming

- AAPT-APS Joint Winter Conference, Chicago, Jan. 21-24, 1980.
- * AAPT-Ontario Conference*, June 13-14 or June 20-21, Trent University, Peterborough.
- CAP Conference, June 16-19, McMaster University, Hamilton.
- AAPT Summer Conference, June 25-27, Troy, New York.

Outstanding High School Student Certificates

(this information was gleaned from the "AAPT Announcer", May, 1979)

The national AAPT provides, upon request, a high-quality certificate for outstanding high school students in physics. This certificate is suitable for presentation at graduation ceremonies; it comes with a sample news release for use in local media and a brief questionnaire in which the name of the student, the university he/she has selected, and the major he/she has selected is asked. Ontario teachers who have requested these certificates have been very pleased with them.

To receive one (limit: one per school), write to: High School Certificates, A.A.P.T., Graduate Physics Building, SUNY at Stony Brook, Stony Brook, N.Y. 11794, U.S.A.

Include teacher's name, school name, and school address. As well, in order to collect data on the physics programs in schools in which these Awards are being given, A.A.P.T. asks that you please answer the following questions:

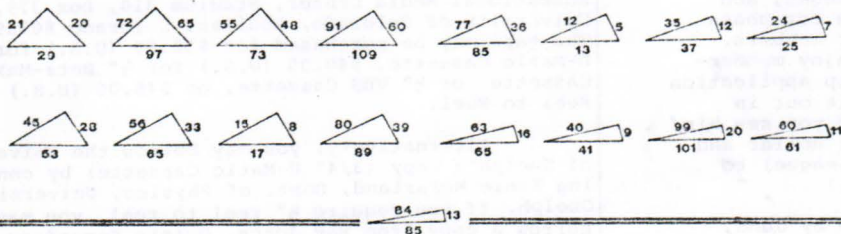
- No. of introductory physics classes: Text:
- No. of advanced physics classes: Text:
- No. of physics teachers:
- Average number of students per physics class:
- No. of graduating students:
- Are you a member of AAPT? *

*not a requirement for requesting award certificates.

Open letter to the readers:

Tired of the same old 3-4-5? Put some variety back into your exam and homework problems! Here are the seventeen other dissimilar right triangles having integer sides with legs < 100:

Donald F. Kirwan and Jack Willis
University of Rhode Island



* This is reprinted, with permission, from "The Physics Teacher", December, 1976.