

**From:** Michael Jones <mdj@phys.hawaii.edu>  
**Subject:** **AAPT meeting minutes for distribution to AAPT members (fwd)**  
**Date:** September 8, 2008 10:07:16 AM HST  
**To:** aapthawaii-l@HAWAII.EDU

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----- Forwarded message -----

Date: Sat, 6 Sep 2008 12:00:17 -1000  
From: Liz King <lking@midpac.edu>  
To: Michael Jones <mdj@phys.hawaii.edu>  
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#### AAPT ANNUAL FALL MEETING

Thanks to Mike Weber for refreshments!

Agenda:

Roundtable Introductions

New Teacher Welcome /New Teacher Workshops (Jeanine Nakakura)

Ø History: Mike Jones wrote a grant to pair new and veteran teachers to construct a physics demo device to share at a following meeting. The idea was to support new teachers or teachers who teach out of field.

Ø Current project: Jeanine wrote another grant when the old one ran out; in this one, new teachers or out-of-field teachers are paired with veteran teachers and given a demo book. Eight pairs of teachers received a demo book, and the pairs can request funds for supplies. Sometime in January, we will have a meeting to share what they came up with. ALL are invited to come see the results!

Ø Derek Minakami hosted a New Teacher Workshop to give new teachers resources and ideas that they can use right away to help them “launch” into the new teaching year. It met with great success, with calls for another workshop later this year dealing with a different topic.

2008-2009 Calender of Events (note: some dates are subject to change!!)

Ø 15 Sept: FIRST robotic orientation at Punahou

Ø 11 oct – Quarknet meeting at Punahou

Ø 25 Oct – SAT test

Ø 25 Oct – Lacy Veach Day at Punahou

Ø Nov ?? – HaSTA Fall Meeting at HCC (see [www.hasta.us](http://www.hasta.us) for more info)

Ø 15 Nov – Physics and Astronomy Open House at UH in conjunction with the “Manoa Experience”

Ø 21 Nov – UH Manoa Engineering Day ([www.eng.hawaii.edu/events](http://www.eng.hawaii.edu/events))

\*\*NOTE - web site says event will be on 15 Nov. \*\*NOTE

Ø 24 Hawaii Underwater Robot Challenge at UH ([www.firstlegoleague.org](http://www.firstlegoleague.org))

Ø 6 Dec – SAT

- Ø 5 Jan – Kickoff for FIRST robotics
- Ø 17 Jan – Physics sharing workshop at Roosevelt HS
- Ø 26 Jan – Astronaut Ellison Onizuka Science Dat at UH Hilo ([www.spacegrant.hawaii.edu](http://www.spacegrant.hawaii.edu))
- Ø 26 Jan – Hawaii Science Bowl at HCC
- Ø 30 Jan – UH Manoa Jr Engineering Expo (middle school)
- Ø 9 Feb – Hawaii Ocean Science Bowl at HU Manoa ([www.soest.hawaii.edu/SOEST\\_News/News/NOSB](http://www.soest.hawaii.edu/SOEST_News/News/NOSB))
- Ø 12-16 Feb – AAAS-AAPT Meeting in Chicago
- Ø 28 Feb – Physics Olympics at KCC
- Ø 7 Mar – Science Olympiad at LCC ([www.hssso.org](http://www.hssso.org))
- Ø 1-2 Mar – Botball Workshop ([www.botball.org](http://www.botball.org))
- Ø 27-29 Mar – FIRST Robotics competition ([www.usfirst.org/community](http://www.usfirst.org/community)).
- Ø 6-8 April – Hawaii State Science Fair ([www.hawaii.edu/acadsci](http://www.hawaii.edu/acadsci))
- Ø 5 April – UH Manoa College of Engineering Open House
- Ø 26 April – Hawaii AAPT meeting at BYU Hawaii
- Ø 27 April – UH IFA Open House ([www.ifa.hawaii.edu](http://www.ifa.hawaii.edu))
- Ø 3 May – Milk Carton Regatta ([www.lanimoo.com/community](http://www.lanimoo.com/community))
- Ø 10 May – Hawaii Botball Regional ([www.botball.org](http://www.botball.org))

Sharing of ideas and teaching demos:

Ø Jim Redmond: lots of freebies from AAPT to share. Demo: in a dark room, shine a transparent ball that has RGB L.E.Ds – swing around and the colors will separate – you will see RGB and what ought to be white (supplies available at Education Innovations). A little red LED push light from Innova (available at City Mill and Target) – can be bright or less bright. If you swing it on dim, you can see that the light blinks – that’s how they make it dim. If you swing it on high power, the light is steady. If you can figure out the blinking rate and attach it to something that falls, you can figure out “some interesting things.” Also showed a light that glows different colors in sequence – good for additive light. Demo’d the new LabQuest from Vernier that is replacing the old LabPro interface. And, Presidian Radar Pitch Baseball - a “baseball” with screen in it that shows how fast it’s going – you set the distance (20-80 feet), and it has a timer inside that does the math. Available for \$4 at Radio Shack.

Ø Brian Pyper – Conservation of momentum: Basketball and tennis ball – drop separately, then drop them with the little one on top and the big one won’t bounce and the little one will fly. Pen, ballpoint

cheap non-clicky. Take the guts out so that you just have an empty tube. Put it on a table and with your thumbs, squeeze it with some back spin. It will get lift and fly around and be very cool. With a piece of paper, blow over the top of it and it comes up due to lift, again. Center of mass demo: stand 2 foot lengths away from a wall, lean over and put your head on the wall and stand up. Repeat but pick up a stool first; Girls can, boys can't.

Ø Mike Weber – long long long plastic bag, try to blow it up with least # of breaths. The trick is to use Bernoulli's Principle to fill with one breath by holding it away from your mouth when you fill it.

Ø Hanno A – University of Washington McDermit and Schaeffer (?) tutorial about velocity. Uses a spark timer to study motion, provides questions for discussion and dialogue. The Website is from a physics education re

Ø Aaron – demo'd some leyden jars he made. Instructions are plentiful on the Net.

Ø Roger Kwok – demo'd the physics behind some common toys. Ball and cup on string – swing the ball and catch it in the cup. The trick is to use inertia – ball is heavy and if it swings straight up, it will slow and hang momentarily, at which time you slip the cup under it. N's 3rd law – if you try to swing the ball onto the cup, the collision causes the ball to bounce off. If you spin the ball before you lift it up, it's a lot more stable and is easier to poke the spike on the handle thru the hole in the ball. Center of Gravity – balancing birds (also look to nature – see how a pigeon walks so that the cog in its belly is always over its feet) and little adjustable man-toy – bring arms up and you can balance him on his chin. Bottle holders that use same idea. Earnest the Bear rides a bicycle across a tightrope b/c his cog is below the rope. Use a wooden ruler, tie a hammer to it, balance it on a table

Center of gravity shown by bold arrow

A little walking penguin pulled by a weight on a string hanging off the edge of a table "walks" toward the and stops right at the edge. 2 person demo – one braces w/feet apart and cannot be easily moved if pushed in one direction but can be easily moved if pushed at 90° to original direction. He used little blocks of 2x4 to show the physics: sorry, too hard to show/explain here in these notes.