AAPT Spring Meeting May 16, 2015

In attendance:

Jeanean Nakaura, VP (standing in for Paul SHerard, who isn't here today) Day job: State STEM resource teacher

Lisa Agle, St Francis school

Liz King, Secretary

Pui Lam, UH Manoa

Roger Kwock, Leeward CC

Shidong Kan

Mike Webber, BYU Hawaii, Treasurer

Hanno Adams,

Joe Lyons Sacred

Matt Cochren, Chaminade

Jalena Maricic , UH physics teacher

Peter Grasch, Kamehameha

Jim Redmond, retired

Mike JOnes, now retired!

Doug Blackington, St Andrews Priory

**Meeting notes**

1. Electing New Officers:

Section Rep: Mike Nassir to continue

Treasurer: Mike Weber to continue

Secretary: Liz King to continue

VP: Matt Cochren

Slate approved by the membership at 9:11 am, 5/16/15

B. Envent Dates for next year

SEpt 12 - HaSTA at Punahou

Halloween - Lacy Veach at Punahou

Check the website for the rest

NOTE: if you have any info about events, or images from events, please send to Jim Redmond

C. Report from last Physics Olympics (Jalena)

Turnout has been getting smaller, there is a suspicion that it's due to the time of year - conflict with science olympiad and all the rest of the stuff that happens at the end of the year. So, one idea is to move the event to the fall semester. Also, discussed possibility of making a video "advertisement" to better market it to the students. Cautionary notes: be careful about SAT and ACT test dates. Discussion pros/cons of holding it 1st semester - kids really don't need to know physics, so it's not a problem to have it early. Robotics kids really don't come, so conflicts w/FIRST isn't really an issue. Nov, Feb, and April are our choices. Jalena and Mike Jones will consider all options and come to a decision.

Ca. Jalena told us about the Physics Olympiad, an online test that has big ramifications for winners. International competition with national and international levels of competition. Punahou has 2 students who progressed to next level this year. Talk with Jalena if you are interested.

D. Presentation of AAPT/Hewett award to Stephanie Betancourt of Kihei Charter HS

Award goes to the teacher of the student who wins the Astronomy/Physics award. $100 check.

We have enough money to continue this tradition in future.

E. invitation to join AAPT - $15 annual dues.

F. Treasurer's report: $1300 now. Upward spikes are due to Paul Hewett donations. Expenses are food-related, especially at Phys Olympics. UH picked up the food tab last year, so the account is pretty stable/sustainable as of late. We are in good shape.

G. Summer physics institutes - AP Phys 1 and AP Phys 2institutes at HPU, Hawaii Loa campus (windward side). Peter Grasch will be the teacher. He's also an ETS reader, will be grading this year's tests later this month. If you have opinions/concerns/suggestions, he's the one to talk to, we have a direct line of communication with ETS now. Each institute lasts 4 days (M-Th), costs about $800. DOE might be able to cover some teachers w/grant money. July 20-23 (both run concurrently).

H. Determine time/place for next meeting: at Punahou, **Sat 29 August 2015**, pending the school administration's approval.

STEM activity by Jeanine:

- discussion: what is/is not STEM

* handout: Engineering Design Process (link to a "livebinder," a place you can put all your files)
* <http://www.livebinders.com/play/play?id=622528> This is a binder Jeanine created. The binder has all the handouts today, plus a power point and connections to buoyancy-related phenomena, a bunch of resources you can use.
* STEM process starts at any point in this cyclical process: ask - imagine - plan - create - experiment - improve - ask - repeat
* Handout: NGSS overview. NGSS has 3 strands, Practices, Crosscutting Concepts, and Core Ideas
* Activity from the book "Everyday Engineering," which Jeanine highly recommends. Classroom STEM activity about buoyancy. Pre-activity prior knowledge handout, exploratory activity comparing different cans of soda (diet, regular, and a mini Mountain Dew can, each has a different density). Then, the STEM part is "design your own life jacket" using little toy soldiers. Use household materials to design a jacket that will keep the soldier's face out of the water. When successful, redesign the preserver using less material (discuss why this would be important). This process incorporates the entire cycle listed above. Reiteration is very important to the learning process.
* Doug Blackburn reported on "Physics Days" that are offered by amusement parks on the mainland. These are designed for mass student field trips. He had a miserable time, but was inspired to write a book. He worked with K-1Speedway corporation to create a really good, physics-oriented field day for students. It's a half-day, intensive field trip at a K-1 speedway track (electric go-karts), where students talk with experts ("professional" racers, mechanics, etc), go to a pit, race cars, and then work physics problems at the end of the day. The raceway at Kapolei now has this program, it's new program for them and needs a little polishing but worthwhile. $23 per person, everybody gets to race 13 laps.
* Roger Kwok - Snell's Law and Polarization (on the cheap!). Sorry, you had to be there . . . As usual, very very cool, and very cheap, as well. We <3 Roger!
* Hanno Adams, circuit diagrams activity. He explained the inquiry method he uses, where student groups work together to puzzle out circuit problems. Discovery learning type. Also described a Vernier lab, where you attach a slinkey and an ammeter to a power source. A magnetic field sets up in the slinkey, and by changing the position of the clips, you will change the current in the slinkey.
* Bryan Terauchi @ [notes.k12.hi.us](http://notes.k12.hi.us) will be giving Sat workshops this summer to share all his great ideas. Aiea. Jeanine will send all info to Mike and Jim, to get the word out among us.

MANY thanks to Roger and Mike Gearen (via Hanno) for door prizes!