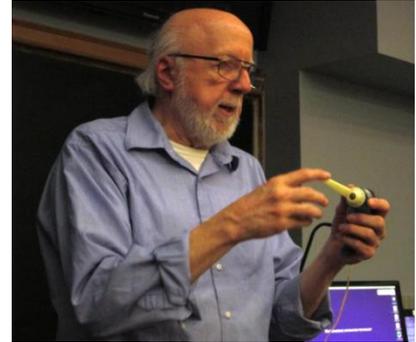


OUR NEXT MEETING...

...is at Oak Park River Forest High School on Tuesday September 20, 6:30 pm to 9:00 pm. Go to the end for directions and map. We will meet in the staff cafeteria, Room 241.

AT OUR LAST MEETING...

... at Northwestern University on May 9, **Art Schmidt** greeted us and began by showing us a "Genecon" generator. He showed it was easy to turn if the leads were unconnected, harder if it is used to light a small flashlight bulb, and even harder if the leads are shorted. Art charged up a 1F disc capacitor, disconnected the leads, and asked if he let the capacitor run the Genecon as a motor, would the handle continue to move forward, or would it move backwards. He let us consider for a minute and then did it. It moved forward. Then Art turned to his 1H inductance which is about 30cm high, 20cm wide, and 10cm deep. I have no idea what it weighs. He asked again whether the handle moves forward or back as the inductance discharges into the Genecon. After we guessed, he showed us. It moved backwards. I guessed wrong both times...it's been too long since I taught Physics.



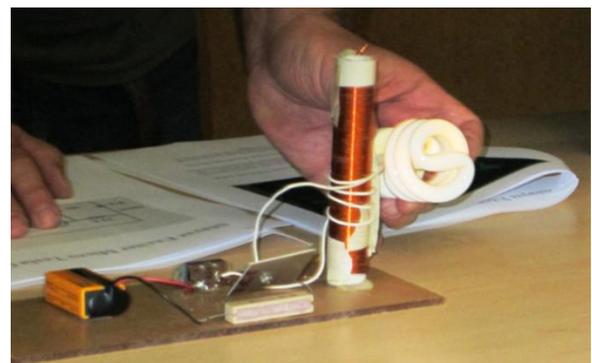
Martha Leitz (Niles West High School) mentioned the workshops at the Summer AAPT meeting this July. We noted the passing of **Bob Pasquesi**, a fine Physics teacher and friend to all of us.

Pete Insley brought his Wilberforce pendulum that was the "giveaway" at the Lake Forest meeting in April. He showed how his was tuned and others contributed how they tuned theirs. Art donated his to anyone who missed the April meeting as Northwestern has its own.



John Papiewski (NEIU) brought a Tesla coil he made and used it to light a CFL light bulb and a small fluorescent tube. John passed out a sheet with the circuit he used and various pieces of advice in case anyone wishes to try building one.

Tom Senior (Lake Forest College) made a cloud in a 2L pop bottle. He put a little water in the bottom of a clear bottle. He lit a small piece of paper and dropped it into the bottom so there would be smoke particles to form condensation points. Then he took a small hand pump and pumped air into the bottle. When the stopper popped off, a cloud formed inside the bottle. He blew into the bottle and the cloud disappeared. It also disappeared when he squeezed the bottle. Then it would appear again when he released the pressure. He recommended a book: *Clouds in a Glass of Beer: Simple Experiments in Atmospheric Physics* by Craig Bohren.



Tom also brought some bubble solution and used a PVC pipe to blow bubbles and connect them together. He suggested looking for bubble solutions at http://soapbubble.wikia.com/wiki/Soap_Bubble_Wiki and recommended a couple, e.g. guar gum and baking soda and water. Add glycerin to keep the bubbles longer.



Rich De Coster brought some baseball bats and balls and laid them on the table. By rolling the ball into the bat you can see how the bat twists when the ball hits it. Then try to hit the bat at the point where the spot you hold your hands does not twist. This is the center of percussion. Rich said you could also use a hammer or hang the bat from a string and hit it in various places along the bat. Rich added a number of differential equations and integrals on the board to describe the motion.

John Milton brought three bulbs in series. He asked a class of new students which bulb would be brightest... and why. He asked what if you move the battery between the bulbs, then what? John then passed a sheet of paper with ten circuits drawn with a battery and 3 bulbs. Each circuit asked which bulb would light and be brightest. Then two answers were supplied. The students were to read the answers and see if they agreed with either answer. And then try the circuit. Which answer was correct? This is a very nice way to introduce battery and bulb circuits.

Art returned with our “giveaway.” He mentioned how at sunset the blue of the sunlight is scattered and the sunset appears red. He had a 1m demonstration tank and an arc lamp. Art added sodium thiosulfate and sulphuric acid to the water precipitating sulphur. The tank slowly turned blue at the arc lamp end and red at the far end. Art used a filter to check for polarization and said coffee creamer also worked but not as well. Then he got out a big box of “sunset eggs.” They were glass eggs that looked translucent. When a flashlight is held at one end the egg turns bluish at the flashlight and reddish at the far end. I was excited to get mine and try it at home. Highly recommended!



It was a very nice meeting with lots of good demonstrations. See you in the Fall.
 Look at ISPP on the Web: <http://www>
 Submitted by **Pete Insley**.

Future ISPP Meetings (*Tri-Physics Meeting)

Date	Location	Contact
September 20th (T)	Oak Park River Forest HS	Kevin McCarron
October 18th (T)	DePaul University	Eric Landahl/John Milton
December 8th (Th)	Niles West HS	Martha Lietz
January (W)	Elmhurst College*	Brian Wilhite
February	Lane Tech High School	Karlene Joseph
March	Loyola University	Gordon Ramsey
April (W)	Lake Forest College	Mike Kash
May 8th (M)	Northwestern University	Art Schmidt

Chicago Section AAPT
 Fall 2016
 Oakton Community College
 November 12 or 19

Physics Northwest
 September 21 (W)
 Lake Forest High School
 October 20 (Th)
 Barrington High School

Directions to Oak Park River Forest High School

210 N Scoville Ave, Oak Park, IL 60302

Kevin McCarron, 708.434.3285

From downtown Chicago and the Loop:

1. Take the Eisenhower Expressway (I-290) west, to Austin Boulevard. Exit from the left. Turn right (north) onto Austin Boulevard. Travel about 1 mile, just past the overhead "L" tracks, and turn left onto Lake Street. Go west on Lake Street to Ridgeland Avenue (3 stop lights). Turn right onto Ridgeland Avenue and go 3 blocks north to Superior Street. Turn left, go to Scoville Avenue (2 blocks). Turn left on Scoville (south) and look for parking. or

2. Take the Eisenhower Expressway (I-290) west, to Harlem Avenue. Exit from the left. Turn right (north) onto Harlem Avenue about 1 mile, past the overhead "L" tracks, to Lake Street. Go east on Lake Street to Oak Park Avenue. Turn left onto Oak Park Avenue and go 3 blocks north to Superior Street. Turn right on Superior and go 4 blocks to Scoville Avenue. Turn right and look for parking.

From the Western Suburbs:

From most locations take either the Eisenhower Expressway (I-290) or the I-88 extension to I-290. Exit from the left lane onto Harlem Ave. Turn left (north) onto Harlem Ave. for about 1 mile, past the overhead "L" tracks to Lake St. Turn right onto Lake St. Go east on Lake St. to Oak Park Ave. Turn left on Oak Park Ave. and go north to Superior St. Turn right on Superior and go 4 blocks to Scoville Ave. Turn right and look for parking.

From Evanston and the North side of Chicago:

1. Take the Edens/Kennedy Expressway south to the Eisenhower Expressway (I-290) junction. Take a right onto the Eisenhower and proceed west about 10 miles to Austin Boulevard. Exit from the left lane. Turn right (north) on Austin Boulevard. Go 1 mile (past overhead "L" tracks, and turn left onto Lake Street. Going west on Lake Street, take a right on Ridgeland Avenue and proceed to Superior Street. Turn left and go to Scoville Avenue. Turn left on Scoville and look for parking. or

2. An alternate route is to take Cicero Avenue (US 41) south to North Avenue. Take a right on North Avenue (west) and proceed to Oak Park Avenue take a left (south) to Superior Street. Turn left on Superior Street (east) and go 4 blocks to Scoville Avenue. Turn right on Scoville and look for parking.

The meeting will be in room 241(teacher's cafeteria). Use the main entrance on Scoville Avenue.

PARKING: There is a parking garage on the south side of the school, but it is not free. (Village-run, so we have no say-so on that.) Parking is free if you park on the curbs touching the school. The curbs across the street are reserved.

