

WebSights features announcements and reviews of select sites of interest to physics teachers. All sites are copyrighted by their authors. This column is available as a web page at [PhysicsEd.BuffaloState.Edu/pubs/WebSights/](http://PhysicsEd.BuffaloState.Edu/pubs/WebSights/). If you have successfully used a physics website that you feel is outstanding and appropriate for WebSights, please email me the URL and describe how you use it to teach or learn physics—[macisadl@buffalostate.edu](mailto:macisadl@buffalostate.edu).

### • **AACT linauguration**

[Teachchemistry.org](http://Teachchemistry.org)

The American Chemical Society (ACS) has launched a discipline-specific professional teacher organization for chemistry teachers called the *American Association of Chemistry Teachers* or AACT. According to the press release, the new association is dedicated to improving chemistry education and providing specialized resources to more than 1 million K-12 chemistry and physical science teachers nationwide in the United States. AACT has three goals: to serve as a trusted source of curricular and pedagogical resources for K-12 chemistry instruction, to provide opportunities for chemistry teachers to network with each other and the broader ACS community, and to disseminate effective teaching and learning practices at the K-12 levels. AACT offers a slew of resources developed by ACS, including an online periodical, lesson plans, webinars and workshops with Continuing Education Units, and videos and other multimedia that will help teach chemistry concepts. Bravo and congratulations to the AACT.

### • **Vocal overtone singing videos and sites**

<https://www.youtube.com/watch?v=vC9Qh709gas>

<https://www.youtube.com/watch?v=VGbFB91eM34>

Following a series of posts to PHYS-L, I have been entertaining myself (and amusing my physics of sound students) by learning to sing harmonic overtones (two notes at once). The relevant videos are listed above; the first features Anna Maria Hefele, a trained singer specializing on overtones with astoundingly flexible and near-complete independent control over both the fundamental and overtone selection. Miroslav Grosser, the gentleman in the second video, shows how anyone can better isolate and lock in on the natural overtones we continuously produce with our voices by focusing on sliding back and forth between vowels while singing a constant pitch. The effect is a wonderfully fun and offbeat application of physics, and I have been trying to learn to better isolate and project a very few overtones metallicly howling along with Springsteen's *Darkness on the Edge of Town* CD in my car—Springsteen uses lots of overtone to color and fatten his long vowel sounds, and the windshield helps reinforce the sound. There are many interesting examples of overtone, “throat singing,” and “Tuvan throat singing” available on YouTube, including links to workshops and opportunities to take lessons via Skype. You should definitely try this cool application to illustrate your boring old one-end-closed pipe overtone lesson.

—Thanks to Timothy Folkerts for starting this discussion on Phys-L.

### **Women in physics: HERStories, and a girls' leadership development survey and report**

<https://www.youtube.com/watch?v=ofE-mJFJR5w>

<http://image.email.nea.org/lib/fe8e1570706d037873/m/2/>

[Girls+Leadership+Report.pdf](http://www.huffingtonpost.com/2014/10/01/nea-girls-leadership-study_n_5910944.html)

[http://www.huffingtonpost.com/2014/10/01/nea-girls-leadership-study\\_n\\_5910944.html](http://www.huffingtonpost.com/2014/10/01/nea-girls-leadership-study_n_5910944.html)

[http://modeling.asu.edu/modeling/Guzzetti\\_gender-modeling.pdf](http://modeling.asu.edu/modeling/Guzzetti_gender-modeling.pdf)

Several new promising links encouraging women in physics. First, “HERStories,” a 14-minute video describing women physicists and the import of their inspiration and encouragement from teachers and family to follow their love for and interest in physics leading to their careers in physics. In the video, women discuss their adventures in the field, including experiences with discrimination, perceptions, social issues, opportunities, and the sheer joy in their chosen physics careers. The video is a resource for encouraging and supporting female physics students. Dr. Beth Cunningham, Executive Officer of the AAPT, and AAPT member Professor Anne Cox appear in the video with many other international female physicists. Next, a recent survey report from the National Education Association (NEA), the American Association of University Women (AAUW), and the Center for Information & Research on Civic Learning & Engagement (CIRCLE) based at Tufts University titled *CLOSING THE LEADERSHIP GAP: How Educators Can Help Girls Lead* was released, exploring educators' perspectives on girls and leadership, particularly during the middle and high school years. The report describes findings and makes recommendations to educators for developing female leadership to create a pipeline of future female leaders. Faculty professional development and diversity training are emphasized. The report is also briefly discussed in a Huffington Post article.

—Jane Jackson of ASU Modeling Physics contributed to this item via Modeling-L posts.

### **Nobel Prize in Physics for Blue LEDs**

[http://www.nobelprize.org/nobel\\_prizes/physics/laureates/2014/press.html](http://www.nobelprize.org/nobel_prizes/physics/laureates/2014/press.html); <http://www.aapt.org/Resources/Diodes.cfm>

To celebrate the 2014 Nobel Prize in physics award for the development of blue LEDs to Akasaki, Amano, and Nakamura, AAPT has released a collection of articles and activities using diodes and LEDs for classroom physics teaching. These articles are culled from the *American Journal of Physics* and *The Physics Teacher* (I particularly recommend the recent Etkina and Planinšič pieces). Interestingly, the 2014 Nobel in Chemistry (to Betzig, Hell, and Moerner) for nanoscopy further underscores the importance of physics in richly interdisciplinary science. Congrats to all of the new laureates and let's try to get their work into our classrooms.