

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).

• **AAPT Committee on Diversity issues Statement on Fisher v. University of Texas at Austin**

– [aapt.org/aboutaapt/organization/fishervsUTAustin.cfm](http://aapt.org/aboutaapt/organization/fishervsUTAustin.cfm)

The association's Committee on Diversity in Physics has issued an eight-page Statement on Fisher v. UT Austin containing 30 references (see also the guest editorial on page 326 of this issue of *TPT*). That statement makes six affirmations I feel should be of interest to all physics educators:

1. *Racism and sexism exist in physics and physics education;*
2. *Homogeneity in physics is the byproduct of racism and sexism;*
3. *Affirmative action is an important counter-measure to institutional racism and sexism in physics;*
4. *Making physics more inclusive and supportive of women and people of color is required for doing excellent physics;*
5. *Increasing diversity is a matter of justice; and*
6. *Women and people of color do not need to justify their presence in physics classrooms.* DOI: 10.1119/1.4961190

• **Downloadable book of physics class practicums**

– [physicsforce.com/class-practicums/](http://physicsforce.com/class-practicums/)

*Physics Practicums for Teachers, 2/e* by Hank Ryan and Jon Barber (and others) is a freely available download from the PhysicsForce website dedicated to science demonstrations and demonstration shows in the Twin Cities, MN. Lab practicums are graded group (or whole class) hands-on problem-solving lab challenges that are carried out as capstone activities at the end of a unit, and reported out via blackboards or whiteboards. Part of the grade includes verbally challenging a group representative, so students must plan and carry out investigations, use equipment to collect, analyze, and report data, and coach the presenter for the final presentation to the teacher. Practicums are carried out during a single lab session often in lieu of a review session, and the book includes mainly HS-level introductory mechanics with some circuits and resistance, optics, and waves practicums. DOI: 10.1119/1.4961191

• **A novel 3D printer-manufactured “digital” Sundial**

– [thingiverse.com/thing:1068443](http://thingiverse.com/thing:1068443)

A *my* cool freely available 3D printed sundial project. The gnomon is a 3D complex perforated half cylinder with multiple light paths through it which casts angular-dependent bright pixels in the gnomon shadow indicating a digital read-out. The sundial is much cooler to watch than to describe in writing.

*Suggested by Sami Cirpili of Hutchinson Technical HS, Buffalo, NY*

DOI: 10.1119/1.4961192

• **Skydiver Luke Aikins jumps from 25,000 feet (7600 m) into a net without a parachute**

- [bgr.com/2016/08/01/skydiving-video-luke-aikins-heaven-sent/](http://bgr.com/2016/08/01/skydiving-video-luke-aikins-heaven-sent/)
- [wired.com/2016/08/physics-behind-madmans-parachute-Free-skydive-giant-net/](http://wired.com/2016/08/physics-behind-madmans-parachute-Free-skydive-giant-net/)
- [outsideonline.com/2099906/how-survive-25000-foot-free-fall-without-parachute](http://outsideonline.com/2099906/how-survive-25000-foot-free-fall-without-parachute)
- [nytimes.com/2016/07/31/us/skydiver-luke-aikins-without-parachute.html?\\_r=1](http://nytimes.com/2016/07/31/us/skydiver-luke-aikins-without-parachute.html?_r=1)

Interesting physics of skydiver steering and navigating during falling descent using GPS and targeting guide lights (Precision Approach Path Indicators – PAPI), and of the inelastic 100 ft x 100 ft “flytrap” net held up by four fixed cranes with support ropes fed through pulleys into four pneumatic “air ratchets” to slow the impact. This is somewhat reminiscent of the demo where one (hopefully) catches a thrown egg in a sheet. An interesting popular event that will be sure to stir your students.

*Thanks to Rhett Allain for his usual insightful analysis.*

*Posted to PHYS-L by L. Woolf* DOI: 10.1119/1.4961193

• **Bruce Yeany's Homemade Science YouTube Channel – low-cost homemade demos for science teachers**

– [youtube.com/user/YeanyScience](http://youtube.com/user/YeanyScience)

Over 100 demos and demonstration equipment-making videos from a Pennsylvania physical science teacher making his own science equipment. Particularly note his low cost Chladni plates and driver.

*Submitted to OPHUN-L by Michael Balzer of Mynderse*

*Academy, Seneca Falls, NY* DOI: 10.1119/1.4961194

• **More gravitational wave events observed by LIGO; Astronomy Magazine supplement; resources**

- [bbc.com/news/science-environment-36540254](http://bbc.com/news/science-environment-36540254)
- [journals.aps.org/prl/abstract/10.1103/PhysRevLett.116.241103](http://journals.aps.org/prl/abstract/10.1103/PhysRevLett.116.241103)
- [pbs.org/newshour/rundown/gravity-waves-the-sequel-ligo-detects-second-pair-of-crashing-black-holes/](http://pbs.org/newshour/rundown/gravity-waves-the-sequel-ligo-detects-second-pair-of-crashing-black-holes/)
- [astronomy.com/-/media/Files/PDF/Marketing/DIGASY\\_PRM\\_GravWavesFIN](http://astronomy.com/-/media/Files/PDF/Marketing/DIGASY_PRM_GravWavesFIN)
- [www.tapir.caltech.edu/~teviet/Waves/](http://www.tapir.caltech.edu/~teviet/Waves/)

A smaller black hole merger again produces detectable signals (at lower levels requiring greater sensitivity than the first). Observational gravitational astronomy is now apparently a working field, with Nobel prizes expected shortly.

*Submitted to PHYS-L by Bernard Cleyet, Don Polvani, and others* DOI: 10.1119/1.4961195