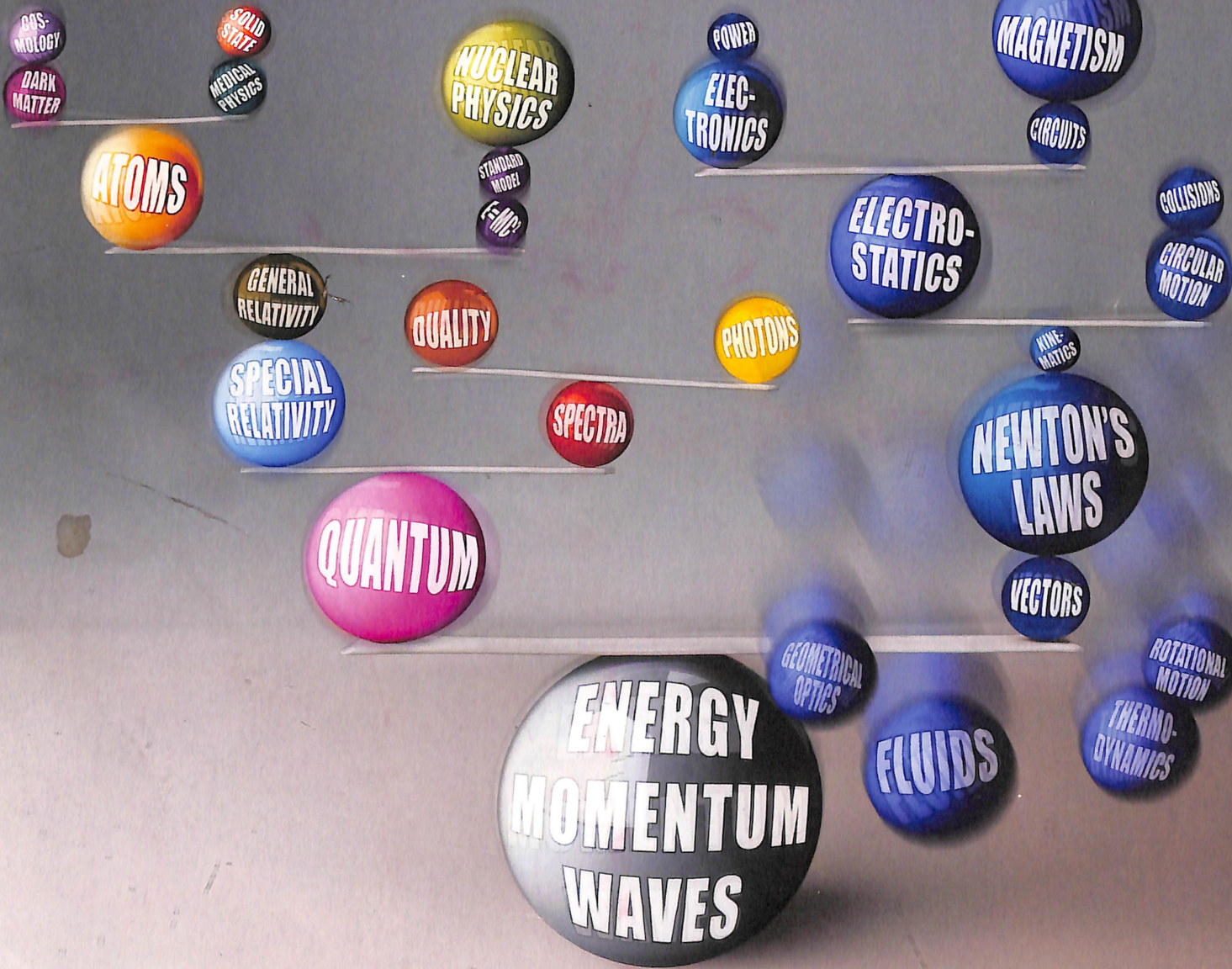


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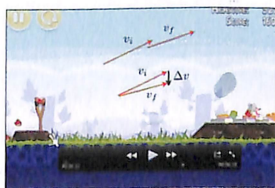
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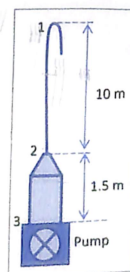


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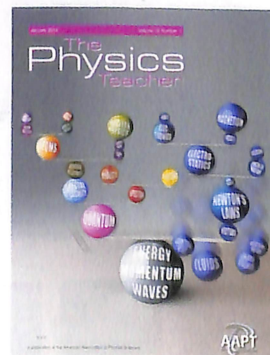
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represents the balance of "modern" and classical physics as expressed by about 450 TPT readers in a recent poll. (See editorial, p. 8.) The blue spheres in free fall correspond to the topics to be omitted or curtailed from the traditional introductory physics sequence in order to make room for the four largest vibrantly colored balls, topics most often selected by the survey respondents for inclusion. Two of the balls appear to have much greater density than the others – which two?



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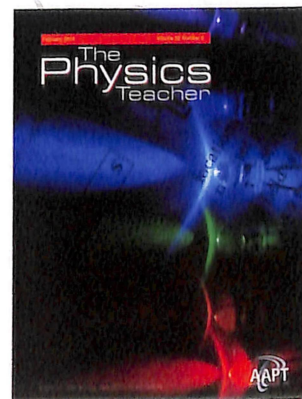
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portrays a rainbow of light-emitting diodes (LEDs) atop a snippet of magnetic prose. See Planinšič and Etkina's article on p. 94, "Light-Emitting Diodes: A Hidden Treasure," for a wealth of suggestions on ways to use LEDs in the classroom.





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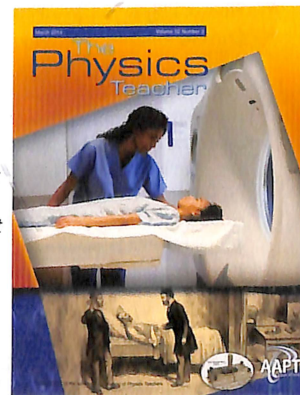
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is a montage of images of physics and medicine including a modern staging of a doctor and patient preparing for a nuclear MRI scan, historical illustrations from Harper's Weekly and Frank Leslie's Illustrated Newspaper depicting the attempt to detect the bullet that killed President Garfield, and a stage-prop "replication" of the device used in this effort (oval inset). For a more authentic sense of this instrument, see the article on p. 137, *Physics Almost Saved the President*, by Overduin, Molloy, and Selway.



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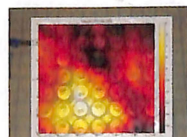
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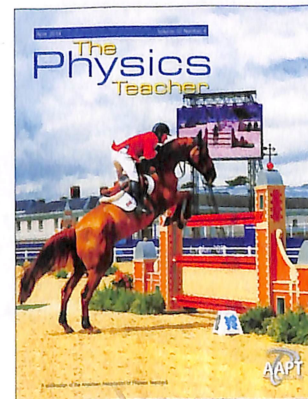
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This Month's Cover...

shows Canadian Eric Lamaze and his young mare, *Derly*, at the completion of the takeoff phase of a jump, in profile (and from the front on the screen above). See the article on page 202 by Art Stinner, "The Physics of Equestrian Show Jumping," for some insights into the relevant kinematics and dynamics. (Photo courtesy, Franz Venhaus.)



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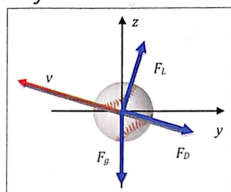
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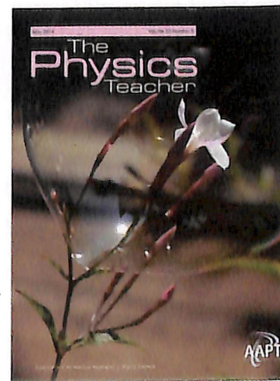
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is a jasmine flower and buds wrapped in a soap bubble from a photo taken by Zohe Beth Slack, a student of Valerie Risk's at Albany High School in California. Gas, liquid, and solid intertwine here in a delicate balance to reveal concave mirror reflection and thin-film interference. Providing a meaty contrast to this floral tranquility is the article by Sliško et al. on p. 266, featuring surprising electrostatic deformations of liquid surfaces.

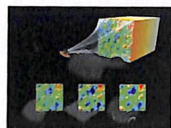


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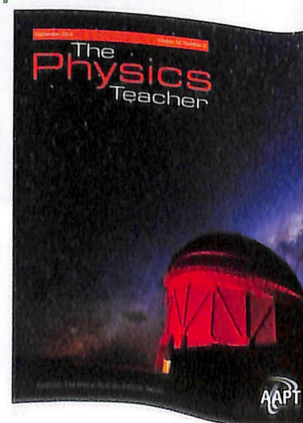
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is a stunning photo by Reidar Hahn of the Cerro Tololo Inter-American Observatory (CTIO) in Chile, with the Milky Way as backdrop. Dark energy, whose mysteries CTIO is poised to unveil, is the topic of Don Lincoln's and Brian Nord's fascinating article on p. 337. See <http://darkenergydetectives.org> for updates from Nord about the Dark Energy Survey Collaboration and their work.



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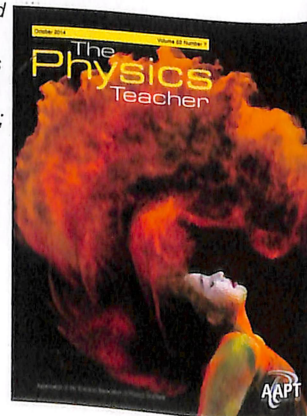
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...freezes a pumpkin-colored halo in the aftermath of an emphatic "hair flip." Strands were coated with orange powder paint before the flip; afterward, smaller particles are suspended briefly, while larger particles fall to Earth. Hannah Nicole Hansen of Detroit Country Day School (teacher, Dan Berger) won Honorable Mention with "The Orange Wave" in the 2014 AAPT High School Physics Photo Contest (www.aapt.org/Programs/contests/winners.cfm?theyear=2014).



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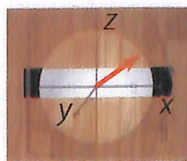
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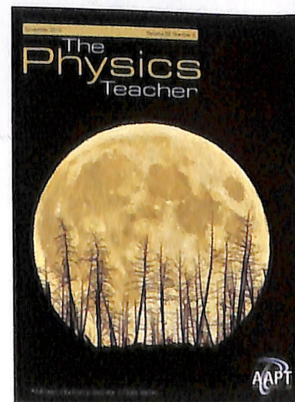
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This Month's Cover...

startlingly portrays the recent supermoon, with skeletal remnants of a 2003 wildfire in silhouette as captured by Gordon R. Gore, a retired physics teacher in Kamloops, British Columbia. For a fuller exploration of the Moon's orbital wanderings, see B. Oostra's article "Introducing the Moon's Orbital Eccentricity" beginning on p. 460.



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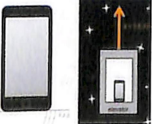
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This Month's Cover...

showcases an almost implausible spiral of water against an impressively verdant Nepalese backdrop. When an elephant curls its trunk and then blows water out as it unfurls, this striking pattern appears and then disintegrates downward with a splash, as quickly as it formed. This winning entry from the 2014 AAPT H.S. Physics Photo Contest is by Bridget Park from Thomas Jefferson H.S. for Science and Technology, Alexandria, VA; teacher: Mark Harmon.

