THE PHYSICS TEACHER

CONTENIDO

VOLUME 49 No. 8 NOVEMBER 2011

PAPERS

470	Atwood's Heavy Chain. Paul Beeken.
474	Galilean Tracks in the Physics Lab. Walter Hellman.
478	Physics for Animation Artists David Chai and Alejandro L. Garcia.
482	Using NASA Science News Articles to Enhance Learning in the Classroom. <i>Vandana Sigh</i> .
484	The Mayer-Joule Principle: The Foundation of the First Law of Thermodynamics. Ronald Newburgh and Harvey S. Leff.
488	Smoke Ring Physics. Elisha Huggins.
493	About the International System of Units (SI) Part I. Introduction and Bibliography. Gordon J. Aubrecht II, Anthony P. French, and Mario Iona.
496	The Three-Pole Electromagnet. Thomas B. Greenlade Jr.
497	A Conspectus on U.S. Energy. Howard C. Hayden.
502	Measuring Lift with the Wright Airfoils. Richard M. Heavers and Arianne Soleymanloo.
505	Vibration Analysis and the Accelerometer. Paul Hammer.
508	Wiimote Experiments: 3-D Inclined Plane Problem for Reinforcing the Vector Concept. Minjoon Kouh and Alae Kawam.

510 Online with Integers. Jonathan W. Siegel and P.B. Siegel.

512 Challenges in Using Analogies. *Shih-Yin Lin and Chandrakha Singh.*

COLUMNS

467 Letter to Editor

468 Figuring Physics.

Normal Force and Weight Paul Hewitt.

514 Apparatus for Teaching Physics.

Looking for radio waves with a simple radio wave detector. *Norihiro Sugimoto*.

517 Trick of the Trade.

A remarkable vector addition exercise. *Wojciech Dindorf.*

518 Physics Challenge for Teachers and Students.

Boris Korsunsky.

518 Fermi Questions.

Larry Weinstein.

YouTube Physics.

Diane Reindeau.

523 For the New Teacher.

"Don't Lecture Me". *Patricia Clanton*.

524 Little Gems.

Magnetic demonstration of weightlessness: A spark of student creativity. *Heladio Ayala, Josip Slisko, and Adrian Corona.*

WebSights.

Dan Maclsaac.

527 Book Reviews

The Grand Desing.

By Stephen Hawking and Leonard Mlodinow: Robert Liposchak reviewer.

528 Inside Back Cover What's Happening!

This Month's Cover...

Shows a steam ring expelled by Etna's sum-mit crater as one of many on

February 24, 2000. By observing the ground, the photographer estimated it to be a staggering 200 meters. See Elisha Huggins' article, p. 488 on making smoke rings in your classroom.