

Cover figure: Reconstruction of a three hole mask using correlations from two quasi-thermal light beams traveling along two different paths. The top figure is for a low threshold level and the bottom for a high threshold level. See the article on page 343.

LETTERS TO THE EDITOR

- 293 Building a transmission electron microscope *Tung Hsu*
293 Advanced labs support by AAPT *Harvey S. Leff*

PAPERS

- 294 Resource Letter PSEn-1: Physics and society: Energy *Art Hobson*
309 Automating data acquisition for the Cavendish balance to
improve the measurement of G *Noah Fitch, Wesley
Bliven, and Tyler
Mitchell*
313 Experiments on subtractive color mixing with a
spectrophotometer *P. U. P. A Gilbert, Willy
Haerberli*
320 Does nature convert mass into energy? *Ralph Baierlein*
326 Nonlinear damping of the LC circuit using antiparallel diodes
*Edward H. Hellen,
Matthew J. Lancot*
331 Round an expanding world: A simple model to illustrate the
kinematical effects of the cosmological expansion *C. Criado, N. Alamo*
336 Linearized Kerr and spinning massive bodies: An
electrodynamics analogy *J. Franklin, P. T. Baker*
343 Ghost imaging: Open secrets and puzzles for undergraduates
*Lorenzo Basano, Pasquale
Ottonello*
352 The first-order orbital equation *Maurizio M. D'Eliseo*
356 Why the near field radiation from a large distributed source
is independent of position *Duane R. Doty, Henry
J. Scudder, III, Ravi
R. Gupta, and Carlos Y.
Saa*
361 Making a fluid rotate: Circular flow of a weakly conducting
fluid induced by a Lorentz body force *Rafael M. Digilov*
368 Superlinearly convergent homogeneous maps and period of
the pendulum *S. Siboni*
374 Giving bonus points based on oral exams *Robert Ehrlich*

NOTES AND DISCUSSIONS

- 377 Comment on "Development and assessment of research-based
tutorials on heat engines and the second law of
thermodynamics," by Matthew J. Cochran and Paula R. L.
Heron [Am. J. Phys. 74 (8), 734-741 (2006)] *Manfred Bucher*

- 379 Automated heat capacity apparatus on a circuit board

Jeffrey Clayhold, Joseph Priest

BOOK REVIEWS

- 382 *The Cosmic Landscape: String Theory and the Illusion of Intelligent Design* by Leonard Susskind
- 383 *A Love of Discovery: Science Education—The Second Career of Robert Karplus* by Robert G. Fuller
- 384 Books Received

Michael Dine

Juan R. Burciaga

AAPT Topical Conference
Computational Physics for Upper Level Courses
Davidson College, Davidson, NC
July 27–28, 2007

The purpose of this conference is to identify problems in which computation helps students understand key physics concepts. Participants are university and college faculty interested in integrating computation into the physics curriculum at their home institutions. Some participants already teach or have taught computational physics to undergraduates, and some are looking for ways to integrate computational physics into their existing physics curriculum.

Participants will contribute and discuss algorithms and curricular material for teaching core subjects such as mechanics, electricity and magnetism, quantum mechanics, and statistical and thermal physics. Participants will prepare and edit their material for posting on an AAPT website such as ComPADRE. Visiting experts will give talks on how computational physics may be used to present key concepts and current research to undergraduates.

Participants are invited to prepare a poster describing how they incorporate computational physics into their teaching, what projects they have assigned to students at different levels, and how computation has enhanced their curriculum. Posters will remain up throughout the conference.

Invited speakers include Amy Bug (Swarthmore College), Norman Chonacky (CISE editor), Francisco Esquembre (University of Murcia, Spain), Robert Swendsen (Carnegie-Mellon University), Steven Gottlieb (Indiana University), Rubin Landau (Oregon State University), Julien C. Sprott (University of Wisconsin), Angela Shiflet (Wofford College), and Eric Warren (Everham Motorsports).

The organizing committee consists of Wolfgang Christian, Jan Tobochnik, Rubin Landau, and Robert Hilbron.

For further information go to www.opensourcephysics.org/CPC