Undergraduate receives Apker Award for research

Mark B. Ritter of Montana State University has been named the winner of the 1981 Apker Award, Lewis M. Branscomb (IBM), chairman of the 1981 Selection Committee and former APS President, announced.

The Apker Award recognizes outstanding achievement in physics by an undergraduate student who demonstrates great potential for future scientific accomplishment. The award consists of $2000, a certificate citing the selected research project and the school where the work was done, and an allowance for travel to the APS Annual Meeting. The Apker Award is the only national prize recognizing achievement in physics at the undergraduate level.

The Selection Committee also made special mention of the excellent work of the three other finalists in this competition: Peter Beiersdorfer, Mark W. Goodman, and Jonathan P. Pelz. Branscomb presented each finalist with a certificate of congratulations from The American Physical Society.

Ritter submitted papers on several topics of original research done while he was an undergraduate at Montana State University. These included: "Doubly resonant, two-photon-absorption-induced four wave mixing in $LiTbF_4$"; "Electron paramagnetic resonance of $[(CH_3)_3NH]\,CuCl_4$–$2H_2O$;" and "Optical studies of magnetic phase transitions." The latter paper was a result of work done while Ritter was a summer student at Yale University, where he is now doing graduate work in applied physics. Ritter will receive his award during the ceremonial session of the APS/AAPT Annual Meeting in San Francisco on 26 January. He will also give an invited paper on his work during this meeting.

Beiersdorfer presented his results on "Magnetic field measurements in a vacuum spark plasma" done while he was an undergraduate student at Auburn University, where he is also continuing his graduate work.

Goodman did his undergraduate work at Brown University and submitted work on several theoretical physics topics including: "Path integral solution to the infinite square well;" "Differential geometry and electromagnetic theory;" and "Monopoles and twisted sigma models." He is now a graduate student at Princeton.

Mark B. Ritter (left), selected by The American Physical Society to receive the Apker Award, being congratulated by Lewis M. Branscomb (right), chairman of the Selection Committee for 1981.

Pelz, as an undergraduate at MIT, did research on "Surface coherence length on exfoliated graphite," and is now doing graduate work in physics at the University of California at Berkeley.

Others nominated by their undergraduate physics departments for the Apker Award are listed below with their institutional affiliations and the title of their undergraduate research project: Saad E. Hebboul (Case Western Reserve University), "Surface flattening kinetics by optical scattering techniques;" Randolph L. Kirk (Stanford University), "Enhancement of dichromographic angiograms made with synchrotron radiation;" Mark Lui (California State University at Los Angeles), "Crystal field energy levels in erbium;" Karen J. Meech (Rice University), "Multicolor surface photometry of Galaxy M33"; and Philip O. Nolan (United States Naval Academy), "The Hermean magnetospheric and magnetotail field."

Nominations invited. Nominations for the 1982 Apker Award are open to students at colleges or universities in the United States who were enrolled as undergraduates during at least part of the 12-month period preceding the 15 June deadline. Only one candidate may be nominated by each physics department. To be considered, the candidate should have completed the requirements for an undergraduate degree with an excellent academic record and should have demonstrated exceptional potential for scientific research by an original contribution to physics.

The application should include a letter of nomination from the head of the physics department; a copy of the student's academic transcript; a senior thesis, publication, or other document written by the student (including a 1000-word summary describing the original contribution to physics submitted for this award); and two letters of recommendation from physicists who know the candidate's individual contribution to the work submitted. The deadline for completed applications is 15 June 1982.

The Selection Committee, to be chaired in 1982 by Herman Feshbach (MIT), will review complete applications and will select the winner from among four finalists invited for interviews in September or October. Interested students or faculty should contact J. A. Burton, Administrator, The American Physical Society, 335 East 45th Street, New York, NY 10017, telephone (212) 682-7341. □