
Mathematics People

Wood and Wickelgren Awarded AIM Five-Year Fellowships

MELANIE MATCHETT WOOD of Princeton University and KIRSTEN GRAHAM WICKELGREN of Stanford University have been named recipients of the 2009 American Institute of Mathematics (AIM) Five-Year Fellowship.

Wood will complete her Ph.D. at Princeton in 2009 under the direction of Manjul Bhargava; her thesis is titled *Moduli Spaces for Rings and Ideals*. She conducts research at the interface of number theory and algebraic geometry, constructing geometric moduli spaces whose points correspond to number-theoretic objects of interest. She represented the United States on the International Mathematics Olympiad team in 1998 and 1999. As an undergraduate at Duke University, she was a Putnam Fellow in 2002 and also won the Alice Schafer Prize that year. In 2003 she won the Morgan Prize for best original mathematical research by an undergraduate.

Wickelgren will receive her Ph.D. in 2009 from Stanford University under the direction of Gunnar Carlsson. She conducts research at the interface of topology and arithmetic and algebraic geometry. In her thesis she examines cohomological obstructions to the existence of sections of the map on étale fundamental groups induced by the structure map of a curve over a number field.

The Five-Year Fellowship covers sixty months of full-time research and provides funds for travel and equipment. The compensation is US\$4,000 per month.

—From an AIM announcement

Sarkar Selected as Clay Research Fellow

SUCHARIT SARKAR of Princeton University has been awarded a 2009 Clay Research Fellowship by the Clay Mathematics Institute (CMI). He will receive his Ph.D. from Princeton University in 2009 under the guidance of Zoltán Szabó. His research area is low-dimensional topology, and

he is currently working on Heegaard Floer homology for three-manifolds and knots inside three-manifolds.

Clay Research Fellows are appointed for terms ranging from two to five years; graduating doctoral students and mathematicians within three years of receiving the doctoral degree are eligible for the fellowships. The primary selection criteria for the fellowship are the exceptional quality of the candidate's research and the candidate's promise to become a mathematical leader.

—From a CMI announcement

Gordina Awarded Michler Prize

MARIA GORDINA of the University of Connecticut has been awarded the third annual Ruth I. Michler Memorial Prize by the Association for Women in Mathematics (AWM) and Cornell University. She will spend the fall semester of the 2009–2010 academic year at Cornell. She received her Ph.D. from Cornell University, investigating holomorphic functions and the heat kernel measure. Her primary research interests involve heat kernel measures and their properties in the context of infinite-dimensional nonlinear spaces.

The Michler Prize is awarded annually to a woman recently promoted to associate professor or an equivalent position in the mathematical sciences. It consists of a residential fellowship in the Cornell University mathematics department without teaching obligations. The amount of the award is US\$45,000, with an additional travel allowance provided by the Cornell University mathematics department.

—From an AWM announcement

Bozeman Receives AAAS Mentor Award

SYLVIA T. BOZEMAN of Spelman College has received the 2008 Mentor Award from the American Association for the Advancement of Science for her commitment to increasing

the number of African-American women with doctorates in mathematics.

Bozeman earned her Ph.D. from Emory University. Since she became chair of the mathematics department at Spelman, twenty Spelman mathematics graduates have received doctoral degrees in mathematics or mathematics education. Half of those students attribute their decisions to attend graduate school directly to Bozeman's encouragement and mentoring. She also is cofounder and codirector of the Enhancing Diversity in Graduate Education (EDGE) program, a joint effort between Spelman College and Bryn Mawr College to improve retention rates of female students in mathematics graduate programs. Between 1998 and 2006, 105 women completed the program; 14 of these, including 5 who are African-American, received their doctoral degrees in mathematics.

The AAAS Mentor Award honors members of the AAAS who have mentored and guided significant numbers of underrepresented students toward Ph.D. degrees in the sciences and who have demonstrated scholarship, activism, and community building on behalf of underrepresented groups, including women of all racial or ethnic groups; African-American, Native American, and Hispanic men; and people with disabilities. This award recognizes individuals in the early or midcareer stage who have mentored students for less than twenty-five years. The recipient receives US\$5,000 and a commemorative plaque.

—From an AAAS announcement

ASL Karp and Sacks Prizes Awarded

ZLIL SELA of Hebrew University has been awarded the 2008 Karp Prize of the Association for Symbolic Logic (ASL) "for his fundamental work connecting logic with geometric group theory. Among the consequences of his work are a proof that the class of finitely generated, torsion-free hyperbolic groups is closed under elementary equivalence and a proof that any two nonabelian free groups are elementarily equivalent." The prize consists of a cash award and is given every five years for an outstanding paper or book in the field of symbolic logic.

INESSA EPSTEIN of the California Institute of Technology and DILIP RAGHAVAN of the University of Toronto have been awarded the 2008 Sacks Prize for the most outstanding doctoral dissertations in mathematical logic. Epstein received her Ph.D. in 2008 from the University of California, Los Angeles, under the supervision of Greg Hjorth. According to the prize citation, in her thesis, *Some Results on Orbit Inequivalent Actions of Non-amenable Groups*, she "solves one of the most important problems in measurable group theory, the resolution of which involves a combination of deep results from different branches of mathematics." Raghavan received his Ph.D. in 2008 from the University of Wisconsin at Madison under the supervision of Bart Kastermans and Ken Kunen. According to the citation, his thesis, *Madness and Set Theory*, "uses modern methods associated with independence proofs to obtain,

just using ZFC, results on almost disjoint (MAD) families, that in particular solve a twenty-year-old problem of Van Douwen."

The Sacks Prize was established to honor Gerald Sacks of the Massachusetts Institute of Technology and Harvard University for his unique contribution to mathematical logic. It consists of a cash award plus five years' free membership in the ASL.

—From an ASL announcement

Heineman Prize Awarded

The 2009 Dannie Heineman Prize in Mathematical Physics has been awarded jointly to ALAIN ROUET of the Science & Tec company, CARLO BECCHI of the University of Genoa, IGOR TYUTIN of Lebedev Physical Institute, and RAYMOND STORA of the Centre National de la Recherche Scientifique for their "discovery and exploitation of the BRST symmetry for the quantization of gauge theories providing a fundamental and essential tool for subsequent developments."

The prize carries a cash award of US\$10,000 and is presented in recognition of outstanding publications in the field of mathematical physics. The prize was established in 1959 by the Heineman Foundation for Research, Educational, Charitable, and Scientific Purposes, Inc., and is administered jointly by the American Institute of Physics (AIP) and the American Physical Society (APS). The prize is presented annually.

—From an APS announcement

National Academy of Engineering Elections

HOWARD A. STONE, Vicky Joseph Professor of Engineering and Applied Mathematics at Harvard University, has been elected to the National Academy of Engineering (NAE) for his work on the "development of fundamental concepts and novel applications in microfluidics and for improving the understanding of small-scale, viscous-flow phenomena."

—From an NAE announcement