
Mathematics People

Bjorken and Callan Awarded 2004 Dirac Medals

The 2004 Dirac Medals of the Abdus Salam International Centre for Theoretical Physics (ICTP) have been awarded to JAMES D. BJORKEN of Stanford University and CURTIS G. CALLAN of Princeton University for their work in the use of deep inelastic scattering for shedding light on the nature of strong interactions.

The award citation reads: “Bjorken was the first to realize the importance of deep inelastic scattering and the first to understand the scaling of cross sections, an insight that ultimately bore his name—the Bjorken scaling of cross sections. Callan, together with Kurt Symanzik (now deceased), reinvented the perturbative renormalization group (in a form that now bears the name Callan-Symanzik equations) and recognized these groups as measures of scale invariance anomalies. Callan has applied these techniques to analyses of deep inelastic scattering and has made substantial contributions to particle physics and, more recently, string theory.”

The ICTP awarded its first Dirac Medal in 1985. Given in honor of P. A. M. Dirac, the medal is awarded annually on Dirac’s birthday, August 8, to an individual or individuals who have made significant contributions to theoretical physics and mathematics. The medalists also receive a prize of US\$5,000. An international committee of distinguished scientists selects the winners from a list of nominated candidates. The Dirac Medal is not awarded to Nobel Laureates or Wolf Foundation Prize winners.

—From an ICTP announcement

PECASE Awards Announced

Fifty-seven young researchers were chosen to receive the 2003 Presidential Early Career Awards for Scientists and Engineers (PECASE). This award is the highest honor

bestowed by the U.S. government on outstanding young scientists, mathematicians, and engineers who are in the early stages of establishing their independent research careers.

Three scholars who work in the mathematical sciences were honored for 2003. They are KONSTANTINA TRIVISA, University of Maryland, College Park; RAVI VAKIL, Stanford University; and HARRY DANKOWICZ, Virginia Polytechnic Institute and State University.

The recipients were selected from nominations made by eight participating federal agencies. Each awardee receives a five-year grant ranging from \$400,000 to nearly \$1 million to further his or her research and educational efforts.

—From an NSF announcement

Prizes of the Académie des Sciences

The Académie des Sciences, Paris, has announced the awarding of several prizes for 2004.

The Grand Prix Sophie Germain was awarded to HENRI BERESTYCKI of l’École des Hautes Études en Sciences Sociales (ÉHÉSS), Paris, for “fundamental contributions to the analysis of nonlinear partial differential equations, especially in models arising in physics, chemistry and biology,” according to the prize citation. Other prizes in mathematics were as follows: the Prix Jaffé to COLETTE MOEGLIN of Institut de Mathématiques de Jussieu des Sciences; the Prix Paul Doistau-Emile Bluter to LAURENT STOLOVITCH, Laboratoire Emile Picard at Toulouse; and the Prix Servant to GUY DAVID, Université Paris-Sud, Orsay.

The Prix Aymé Poirson, for applications of science to industry, was awarded to BIJAN MOHAMMADI, Université de Montpellier. ALBERT COHEN, Université Pierre et Marie Curie, received the Prix Blaise Pascal du Gamni-Smai. The Prix Jacques Herbrand was awarded to NIKITA NEKRASSOV,

Institut des Hautes Études Scientifiques, Bures-sur-Yvette, and the Prix Leconte went to RÉMI MONASSON, Laboratoire de Physique Théorique de l'École Normale Supérieure, Paris.

—*From an Académie des Sciences announcement*

NDSEG Fellowships Awarded

Thirteen young mathematicians have been awarded National Defense Science and Engineering Graduate (NDSEG) Fellowships by the Department of Defense (DoD). As a means of increasing the number of U.S. citizens trained in disciplines of military importance in science and engineering, DoD awards fellowships to individuals who have demonstrated ability and special aptitude for advanced training in science and engineering. The fellowships are sponsored by the United States Army, Navy, and Air Force.

Following are the names of the fellows in mathematics and the offices that awarded the fellowships. SAMUEL ISAACSON, Air Force Office of Scientific Research (AFOSR); TIFFANY PSEMENEKI, AFOSR; NITIN SAKSENA, AFOSR; BRYAN SMITH, AFOSR; PAUL VALIANT, AFOSR; WILLIAM FONG, Army Research Office (ARO); JAYCE GETZ, ARO; PAUL HAND, ARO; PHILIP MATCHETT, ARO; JOHN WORKMAN, ARO; MEGAN GUICHARD, Office of Naval Research (ONR); BERNARD MARES, ONR; and DAVID SMYTH, ONR.

—*From an NDSEG announcement*

National High School Calculus Student Award

RYAN WILLIAMS, a student at Miami Springs High School, Florida, has won the fourth annual National High School Calculus Student Award. Williams has qualified three times for the USA Mathematical Olympiad (USAMO), has twice been the Florida state calculus champion, was the Florida Mathematics League individual champion in 2003–2004, and received the first-ever perfect score on the David Essner Exam, given by the University of Miami. He will attend Stanford University. The \$1,000 prize is awarded by Calculus.org, based at the University of California at Davis, Williams College, and Wake Forest University.

—*Calculus.org*

Pi Mu Epsilon Student Paper Presentation Awards

Pi Mu Epsilon (PME), the U.S. honorary mathematics society, makes annual awards to recognize the best papers by undergraduate students presented at a PME student-paper session. This year the PME held a session in conjunction

with the MAA MathFest in Providence, Rhode Island, August 12–14, 2004. Each awardee received a prize of \$150.

The Pi Mu Epsilon awards for best presentations are sponsored by the AMS. Seven students were chosen for this award. Their names, institutions, and titles of their talks follow: STEPHANIE BARILLE, Mount Union College, “Catch the Wave”; NATHAN EDINGTON, Hood College, “Computer Implementations of Five Important Approximations to Pi”; JEREMY HAMILTON, Youngstown State University, “Fun with Incircles”; COLLEEN HUGHES, Denison University, “Intrinsic Linking of K_6 ”; THEODORE STADNIK, Youngstown State University, “Bivariate Normal Estimation of Digitally Imaged Data”; RYAN STERNBERG, Worcester Polytechnic Institute, “Cartesian Products of Triangles as Unit Distance Graphs”; and ALYSSA WOOD, St. Norbert College, “Mathematical Espionage: Breaking the ‘Unbreakable’ Enigma Code”.

The prize for best research presentation, sponsored by the Council on Undergraduate Research, went to NICOLE CUNNINGHAM, Youngstown State University, for her paper “Comparing the Eigenvalues of Products of Matrices”. The SIAM award for best presentation on environmental issues was given to MICHAEL CORTEZ, Hope College, for his paper “A Mathematical Model of Tri-Trophic Interactions”.

—*Elaine Kehoe*