Mathematics People

Higson and Ward Receive Aisenstadt Prize

The Centre de Recherches Mathématiques has announced that the third and fourth André Aisenstadt Prizes have been awarded to NIGEL D. HIGSON of Pennsylvania State University and MICHAEL J. WARD of the University of British Columbia. The $3,000 prize, named for the philanthropist André Aisenstadt, is intended to recognize and reward talented young Canadian researchers in the mathematical sciences.

Nigel D. Higson was honored for his contributions in the area of operator algebras, particularly the algebraic K-theory of C^*-algebras. He is responsible for important developments in Kasparov's KK-theory and in the index theory for operator algebras. Higson received his B.A., M.Sc., and Ph.D. (1986) from Dalhousie University in Halifax, where his thesis advisor was P. A. Fillmore. Higson was at the University of Pennsylvania from 1986 to 1990. He then moved to Pennsylvania State, where he is currently an associate professor. He has held a Sloan Foundation Research Fellowship.

Michael J. Ward was honored for his work in asymptotics, scientific computing, and mathematical modeling with emphasis on modern applications of physical applied mathematics. His research has applications to semiconductor device modeling, steady-state combustion theory, diffusion in singularly perturbed domains, reaction diffusion models exhibiting interfacial dynamics and metastable behavior, and strong localized inhomogeneities in various physical systems. Ward received his B.Sc. in mathematics at UBC and his Ph.D. in applied mathematics in 1988 at the Cali-fornia Institute of Technology, under the direction of Donald S. Cohen. After stays at Stanford University and the Courant Institute, Ward returned in 1992 to UBC, where he is currently an assistant professor.

The recipients of the Aisenstadt Prize were chosen by the following advisory panel: Raoul Bott, Donald Dawson, P.A. Fillmore, Martin Goldstein, Carl Herz, Jean-Pierre Kahane, Hershy Kisilevsky, Alistair H. Lachlan, François Lalonde, Yuri I. Manin, Robert Miura, Robert V. Moody, Jürgen Moser, Duong H. Phong, Nancy Reid, and Luc Vinet. The previous winners of the Aisenstadt Prize are Niky Kamran of McGill University and Ian F. Putnam of the University of Victoria.

— CRM Bulletin

Prizes of the Mathematical Society of Japan

The Mathematical Society of Japan (MSJ) has presented a number of prizes in recognition of outstanding contributions to mathematics.

The 1995 Spring Prize of the MSJ was presented to MITSUHIRO SHISHIKURA of the University of Tokyo for his outstanding contributions to the theory of complex dynamical systems.

The 1995 Geometry Prize was presented to MASAAKI UMEHARA of Osaka University and to KOTARO YAMADA of Kumamoto University for their distinguished contribu-

tions to research on the geometry of constant mean curvature 1 surfaces in hyperbolic three-spaces.

The Seki Prize of the MSJ was presented to the late TOYOSABURO TANIGUCHI for his impressive and outstanding support of the development of mathematics.

In addition, the Inoue Foundation of Japan awarded the 1995 Inoue Prize for Science to AKIO KAWAUCHI of Osaka City University for his outstanding contributions to the theory of knots.

— Publicity Committee of the MSJ

Mañé Receives Third World Academy of Sciences Prize
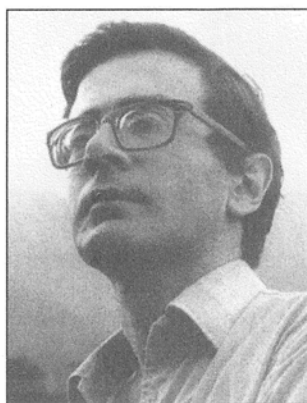
Each year, the Third World Academy of Sciences (TWAS) awards five prizes of US$10,000 each to individual scientists from developing countries who have made outstanding contributions to the advancement of basic sciences (biology, chemistry, mathematics, physics, and basic medical sciences). RICARDO MAÑÉ of the Instituto de Matemática Pura e Aplicada in Rio de Janeiro, Brazil, received the 1994 prize in mathematics.

Mañé was honored for his outstanding research on the ergodic theory of differentiable dynamical systems, through which he achieved fundamental contributions to various problems in this field. In particular, he solved the problem of characterizing structurally stable systems. Roughly speaking, a structurally stable dynamical system is one whose orbit structure remains topologically unchanged when the system is slightly perturbed. In the late 1960s, Palis and Smale made a conjecture about a necessary and sufficient condition for structural stability. The sufficiency was proved in the early 1970s, but the necessity remained open and came to be called the Stability Conjecture. After many partial results by other researchers, the Stability Conjecture for diffeomorphisms was proved by Mañé in in 1986. He also worked on an analogue of the Stability Conjecture for rational maps. In more recent years, he worked on the variational ergodic theory of conservative dynamical systems.

Born in Uruguay in 1948, Mañé received his Ph.D. from IMPA in 1973, under the direction of Jacob Palis, and remained at IMPA throughout his academic career. He was an invited sectional speaker at the International Congress of Mathematicians in 1983 in Warsaw and in 1994 in Zurich. In 1994, he was elected to the Brazilian Academy of Sciences. Mañé died in March of 1995. An obituary is being prepared for a future issue of the *Notices*.

—Allyn Jackson

Palis Receives OAS Science Prize
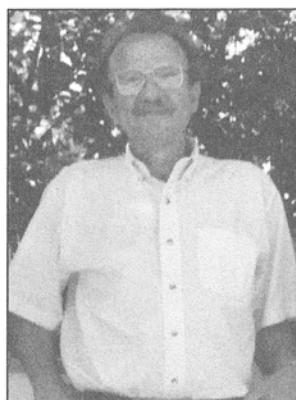
JACOB PALIS of Instituto de Matemática Pura e Aplicada (IMPA) has been awarded the 1995 Bernardo A. Houssay Interamerican Prize for Science. The prize, given by the Organization of American States, carries a stipend of $30,000.

The award is named in honor of Nobel laureate Bernardo Houssay. The purpose of the prize is to perpetuate the memory of Houssay, a man whose life was a constant example of dedication to research, to the training of researchers, and to the advancement of education. At the same time, the prize also offers incentives to Latin American and Caribbean researchers who have made scientific contributions of outstanding importance for the social welfare and development of humanity. The prize is given each year in one of the following areas: biological sciences, exact sciences (physics, chemistry, mathematics, and related sciences), agricultural sciences, and technical research of importance to development.

Palis has made outstanding contributions to mathematics, especially to the field of dynamical systems. His fundamental work has proved important to an understanding of stable systems and, partially, their bifurcations. More recently he has been contributing to a global view of chaotic systems.

Palis helped to build IMPA, a remarkable institute in Rio de Janeiro which has become an international center for dynamical systems research. Over the past two decades, he has advised thirty-three Ph.D. students from ten different countries.

Palis was born in the interior of Brazil in 1940. He moved to Rio de Janeiro in 1956, and in 1962 he earned a bachelor's degree in engineering at the Federal University. Moving to Berkeley in 1964, he finished his doctorate in 1967 under the direction of Stephen Smale. Palis has been at IMPA since 1968. Elected to the Brazilian Academy of Sciences in 1973, he has also received the Brazilian Prize for Science and the Third World Academy of Sciences Prize for Mathematics. Palis was an invited speaker at the 1978 International Congress of Mathematicians in Helsinki. He has served as secretary for the International Mathematical Union since 1991.

— IMPA Announcement