



ASSOCIATION FOR
WOMEN IN MATHEMATICS

PRESS RELEASE

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Kate Okikiolu Named 2009 Falconer Lecturer



The Association for Women in Mathematics (AWM) and the Mathematical Association of America (MAA) are pleased to announce that Kate Okikiolu will deliver the Falconer Lecture at MathFest 2009. Okikiolu, a professor of mathematics at the University of California,

San Diego, was selected for this honor because of her contributions to mathematics and mathematics education.

Okikiolu earned her B.A. in mathematics from Cambridge University before coming to the U.S. in 1987 to attend graduate school in mathematics at the University of California, Los Angeles. There, she worked with two mentors, Sun-Yung (Alice) Chang and John Garnett, and was able to solve a problem concerning asymptotics of determinants of Toeplitz operators on the sphere and a conjecture of Peter Jones, characterizing subsets of rectifiable curves in Euclidean n -space. She earned her Ph.D. at UCLA in 1991.

In 1991, Kate went to Princeton University, where she was an instructor and then assistant professor until 1995. From 1995 through 1997 she was a visiting assistant professor at MIT as an NSF postdoc. Since 1997, she has been on the faculty in the Mathematics Department of the University of California, San Diego (UCSD), rising to the rank of professor in 2004. In 1996, Okikiolu delivered the 25th Anniversary Lecture at the celebratory AWM luncheon. In 2002, she gave the NAM Claytor-Woodard Lecture at the Joint Mathematics Meetings. In June 1997, Kate Okikiolu was the first black mathematician to win a Sloan Research Fellowship, a prestigious award for young mathematics researchers in the United States. Okikiolu is a mathematical analyst, and most of her research is in the area of spectral geometry. In the last

eight years, she has worked mostly on the spectral zeta function, which is an infinite sum of powers of the eigenvalues. In particular, she has worked on the zeta-regularized determinant, which is used in topology, quantum field theory, and string theory.

Recently, she has been very interested in the sum of squares of the wavelength of a surface, which is related to all kinds of different things including vortex theory. Her lecture topic will be “The Sum of Squares of Wavelengths of a Closed Surface”.

Okikiolu comes from a mathematical family; her father is a mathematician and inventor and her mother is a high school mathematics teacher. She is married to mathematician Hans Lindblad. For her work aiding inner-city children, Okikiolu plans to make a series of videos depicting model teaching lessons that emphasize real-world perspectives.

MathFest 2009 will be held August 6–8 in Portland, OR. The lecture honors Etta Z. Falconer (1933–2002) whose many years of service in promoting mathematics at Spelman College and efforts to enhance the movement of minorities and women into scientific careers through many forums in the mathematics and science communities were extraordinary. The Falconer Lecturer is chosen on the basis of distinguished contributions to the mathematical sciences or mathematics education. Recent Falconer lecturers include Katherine St. John, Trachette Jackson, Fern Hunt, Rebecca Goldin and Bozenna Pasik-Duncan.

AWM was established in 1971 to encourage women and girls to study and have active careers in the mathematical sciences. The AWM has approximately 3000 members, both women and men, from the U.S. and around the world, representing a broad spectrum of the mathematical community. The AWM offers programs that provide professional development, mentoring, and community involvement for women and girls at various stages of their education and professional careers. Additional information on AWM is available at www.awm-math.org or by calling 703-934-0163, ext. 213.