

**March 3, 2011**

**2011 Vaden W. Miles Memorial Lecturer: Professor Sylvester James Gates, Jr.  
"SUSY and the Lords of the Ring: Supersymmetry Theory"**

Professor Gates is the John S. Toll Professor of Physics, and Director of the Center for String and Particle Theory at the University of Maryland, College Park. In 2009, President Obama named Gates as a member of PCAST - the President's Council of Advisors on Science and Technology and Governor O'Malley nominated him for the Maryland State Board of Education where he currently serves.

Professor Gates is internationally known for his ability to communicate the complex ideas at the forefront of theoretical physics to a general audience, for his promotion of science education, and for his groundbreaking and ongoing research in the areas of supersymmetry and supergravity - areas closely related to string theory. Gates has been featured on the PBS television programs: "A Science Odyssey," "Breakthrough: The Changing Face of Science in America," "Einstein's Big Idea," and "The Elegant Universe.

Gates holds two Bachelor of Science degrees in mathematics and physics, and a Ph.D. in physics from the Massachusetts Institute of Technology (MIT). His Ph.D. thesis (1977), "Symmetry Principles in Selected Problems of Field Theory," was the first at MIT on the topic of supersymmetry. He completed his postgraduate studies at Harvard University and the California Institute of Technology.

Gates has authored or co-authored over 200 scientific research papers in the areas of string theory, supersymmetry, and supergravity; and, written numerous scientific articles. He authored the popular DVD lecture course "Superstring Theory: The DNA of Reality" for The Great Courses company, co-authored "Superspace or 1001 Lessons in Supersymmetry," (with M. T. Grisaru, M. Rocek, and W. Siegel), and authored "L'arte della Fisica: Stringhe, Superstringhe, Teoria Unificata dei Campi". Professor Gates recommends the following Scientific American style article for the interested public: "Symbols of Power", Physics World, Vol. 23, No 6, June 2010, pp. 34 - 39.

He has won numerous prestigious awards and is a Fellow of the American Association for the Advancement of Science (AAAS), the American Physical Society (APS), and the National Society of Black Physicists (NSBP). Gates was the first recipient of the APS Bouchet Award and was a past president of NSBP.