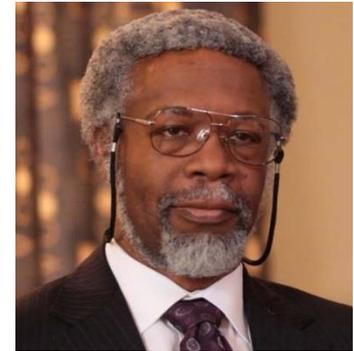


## S. James Gates, Jr.

**Job title:** John S. Toll Professor; Director, Center for String & Particle Theory, at the [University of Maryland](#), member of the President's Council of Advisors on Science and Technology.



In 2013, President Obama awarded Prof. Gates the National Medal of Science, the highest recognition given by the U.S. to scientists with the citation, “For his contribution to the mathematics of supersymmetry in particle, field and string theories and his extraordinary efforts to engage the public on the beauty and wonder of fundamental physics.” That year, he was also elected to the National Academy of Sciences, becoming the first African-American physicist so recognized in its 150-year history. To learn more about Gates’ career from PBS [click here](#).

### **What sparked your interest in Science Technology Engineering Math (STEM)?**

In the 11th grade, I took a course in physics. I knew immediately that it was what I wanted to do with my life. To me, mathematics was something we did in our heads and was thus, almost by definition, an element of our imaginations. It was a game whose rules we learned to play in school. But like every game of fantasy, those rules could be changed at our desire.

### **How did you start on your path to a career in STEM and what did that path look like?**

Though I always did well in school, I almost did not attend college. Though several colleges had contacted me about attending their school, I was afraid to apply for fear of being rejected. My father eventually convinced me to apply, and happily I was accepted at MIT. I completed all of my education there, receiving bachelor's degrees in both physics and mathematics and a Ph.D. in physics. Then I went on to earn post doctoral fellowships at both Harvard and the California Institute of Technology.

### **What would you say to young folks who are thinking about a career in STEM?**

Take algebra. I tell them that if as a ninth grader you choose not to take an algebra course, 57 percent of the possible jobs you could have had will no longer be accessible. You have a choice. You can be poor in this society, or you can choose to get an education. And it starts with algebra.