VISITING SCHOLAR PROGRAM

Talitha Washington

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Public Lecture Offerings

Data Science for Social Justice
Data science impacts every facet of our lives: from marketing to finance to voting to facial recognition to medical care. What happens if data science develops technology that amplifies societal biases and blatant racism? Dr. Washington will share her vision of how we can all contribute to bringing true validity into data science.

Choosing to Become a Mathematician in Spite of Obstacles
Beginning to navigate the mathematical community can feel abstract and vague. As a first-year undergraduate student, Talitha Washington withdrew from a mathematical proof course because of the rigorous demand. Now, she is a full professor of mathematics who leads a major initiative to develop data science that is grounded in ethics and addresses topics in Black America. She will share her pursuit of mathematics and how to cultivate mathematics through the broader community.

Nonstandard Finite Difference Schemes for a Nonlinear World
Many real-world phenomena tend to be modeled via nonlinear models. In the late 1980's, Ronald Mickens of Clark Atlanta University introduced the concept of a nonstandard finite difference scheme (NSFD) as a methodology which would best approximate solutions to systems of nonlinear differential equations. This talk will

uncover how to construct NSFD schemes for various nonlinear models, including the well-known models for the spread of a disease models and the model for the dynamics of the infamous Tacoma Narrows Bridge.

The Mathematics of the 'Hidden Figures'
What's the mathematics that Katharine Johnson used to send John Glenn into orbit and bring him back safely? Come and uncover the essential ideas created by Johnson during the Space Race. We will also explore how other 'Hidden Figures' helped Johnson become a research mathematician in a racially segregated era.

Classroom Discussion Topics

Expansion on any of the above lecture topics