

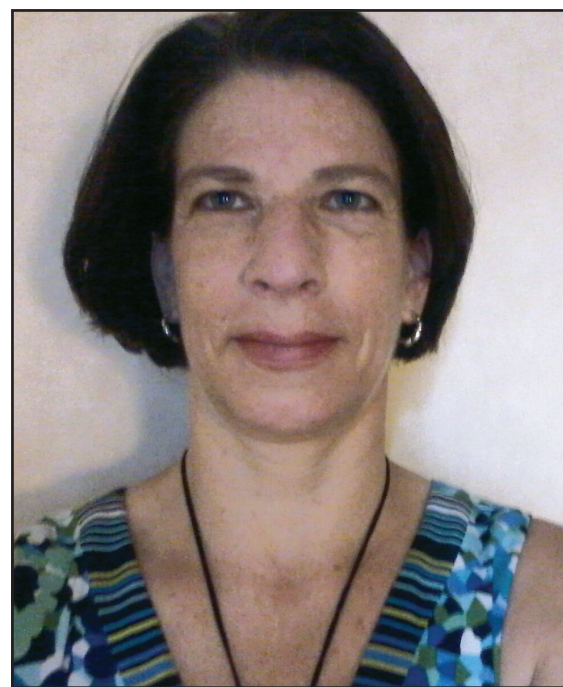
FIFTH ANNUAL LECTURE

Life Experiences in
MATHEMATICS

March 21, 2014 • 4:00 p.m.

Marrs McLean Science, Room 301

DR. BONNIE RAY
*Senior Manager for Data
and Decision Analytics,
IBM T. J. Watson
Research Center*



Bonnie received her Bachelor of Science degree in Mathematics from Baylor in 1985, graduating summa cum laude. During her time at Baylor, she served as president of Mu Sigma Beta, the mathematics honor society, was a member of Phi Beta Kappa, Mortar Board, and Alpha Phi Omega, and a founding member of Baylor's chapter of the Kappa Delta sorority. She went on to complete her Ph.D. in Statistics from Columbia University in 1991, supported by an Office of Naval Research graduate fellowship. After graduating from Columbia, Bonnie held a postdoctoral position at the Naval Postgraduate School before taking a tenure track position in the Department of Mathematics at the New Jersey Institute of Technology. After receiving tenure at NJIT, Bonnie moved to IBM Research in Yorktown Heights, NY as a

Research Staff Member in the Business Analytics and Math Sciences department, in part to gain access to research challenges of immediate business significance. In 2006, she and her family had the opportunity to take a two year assignment in Beijing, China, during which time she held the position of Program Manager, Analytics and Optimization at IBM's China Research Lab. Currently she is Senior Manager, Data and Decision Analytics, supervising more than 30 Ph.D. researchers and software engineers developing new methods and algorithms to address the business needs of IBM and its clients in statistics, machine learning, scalable analytics, and risk and decision analysis. Bonnie is a Fellow of the American Statistical Association, has over 60 refereed papers and holds 9 patents.

Math³ = Business Analytics

I will discuss the accelerating need for analytics skills across a broad set of industries, and the fundamental role mathematics plays in the statistics, operations research, and computer science disciplines that together make up the relatively new field of Business Analytics. Additionally, I will discuss the importance of problem formulation and communication to the success of any business analytics project. The ideas will be illustrated using examples of business analytic initiatives carried out at IBM Research, both with IBM clients as well as with other organizations within IBM.



BAYLOR
UNIVERSITY

COLLEGE OF ARTS & SCIENCES