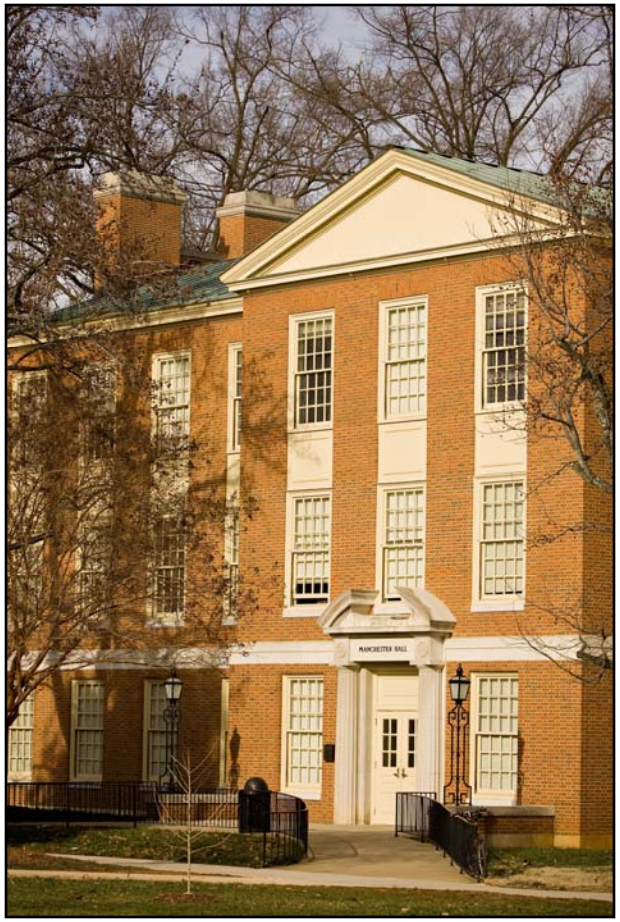
The Ivey and Nell Gentry Lectureship

The Ivey and Nell Gentry Lectureship was established in 1986 by the generous gifts of relatives and friends of Ivey and Nell Gentry. The purpose of this lectureship is to bring to campus annually an outstanding scholar in mathematics.

Ivey Gentry (1919-1998) graduated from Wake Forest College in 1940. Service in the army air corps during World War II was followed by enrollment at Duke University from which he received the Ph.D. in mathematics in 1949. After Duke, he joined the faculty at Wake Forest College where he remained until retirement in 1989. From 1956-81, he was chairman of the Department of Mathematics.

Professor Gentry's tenure as chairman spanned the most formative years of the college, later university. His most important responsibility was to build a departmental faculty and curriculum for a growing institution on a new campus. When the college became a university in 1967, Professor Gentry recognized the importance of research and publication.

Until her death in 1983, Professor Gentry's wife, Nell, was constantly at his side as helpmate and advisor. Her interests were his interests, and her tireless efforts on behalf of the department were legion and great. Nell Gentry's attention to detail and propensity for candid verbal expression were the perfect complement to Professor Gentry's gentle and informal approach. Ivey and Nell were devoted not only to each other, but also to Wake Forest and all this fine institution represents. Even to this day, we are the beneficiaries of their lives and service.



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WAKE FOREST UNIVERSITY
Department of Mathematics
Presents the:

2006 - 2007
GENTRY LECTURES

Dr. Jeffrey Rosenthal
Department of Statistics
University of Toronto

PREVIOUS GENTRY LECTURERS

Art Benjamin 2005-06
Gene Golub 2004-05
John Conway 2003-04
Jerrold Marsden 2002-03
Michael Artin 2001-02
Andrew Granville 2000-01
Ingrid Daubechies 1999-00
Frank Morgan 1998-99
Margaret Wright 1997-98
Richard Brualdi 1996-97
Doris Schattschneider 1995-96
Georgia Benkart 1994-95
Jack Hale 1993-94
Bradley Efron 1992-93
Robert Bryant 1991-92
Ron Graham 1990-91
Paul Waltman 1989-90
Lance Small 1988-89
Phillip Griffiths 1987-88
Carl Pomerance 1986-87
Walter Rudin 1985-86

Dr. Jeffrey Rosenthal - University of Toronto

Jeffrey Rosenthal, Professor in the Department of Statistics at the University of Toronto, is the 2006 winner of the CRM-SSC prize. Dr. Rosenthal's elegant and landmark results set him as one of the leaders in the development of Markov chain Monte Carlo methods. Within 15 years of his PhD, Jeffrey Rosenthal has made outstanding contributions to asymptotic theory related to Markov processes and, with great insight and ingenuity, to clarifying the practical implications of theory in this area. Jeffrey Rosenthal is a powerful researcher, gifted with a natural ability to translate difficult concepts. His extensive collaborations reflect his expansive interests and his emphasis on practical aspects of theoretical results.

Jeffrey received his BSc from the University of Toronto in 1988, and an MA (1990) and PhD (1992) from Harvard University. His PhD supervisor was Persi Diaconis and it was at Harvard that Jeffrey Rosenthal's interest in applications and practical issues was piqued. In a series of elegant papers which are rich with mathematical analysis, Jeffrey has studied convergence rates of MCMC algorithms, for hybrid samplers, slice samplers, time-inhomogeneous chains and time-sampled chains. Jeffrey Rosenthal has received many honors and awards over his career, including being elected IMS Fellow in 2005.

Jeffrey is also an outstanding teacher, receiving awards for developing innovation in the classroom. He has a long-standing interest in learning strategies and has been very active in this area at the University of Toronto. With his recent book `Struck by Lightning' Jeffrey Rosenthal makes statistics and probability accessible to the general audience in entertaining ways. Entertainment is also part of his comedy act at the Bad Dog theatre in Toronto where he performs improv with his troupe. Improv is an intellectual sport where troupe members cast one-liners at each other to build momentum to a punch line. Amateur comic Jeffrey Rosenthal and his troupe bring the house down in laughter on wintry Friday evenings. He also plays and performs guitar, keyboard, harmonica, saxophone, trumpet, penny whistle, and bongo drums.

Wednesday, March 7, 2007

4:00pm Annenburg Forum

* General Audience*

"What is MCMC?"

Markov chain Monte Carlo (MCMC) algorithms have become extremely popular in statistics, physics, and computer science, to sample from complicated probability distributions.

This talk will review the implementation, application, and analysis of these algorithms, focusing on the symmetric Metropolis algorithm, and making connections to repeated gambling.

The ideas will be illustrated with simple graphical simulations

(available at probability.ca); no particular mathematical background will be assumed.

Thursday, March 8, 2007

4:00pm

Manchester Hall, Rm 016

"Coupling and

Convergence of MCMC"

This talk will explain the use of coupling constructions to obtain quantitative bounds on the convergence to stationarity of MCMC algorithms.

We will introduce minorization and drift conditions, and apply them to various Gibbs sampler algorithms used in statistics.

We will also discuss related analysis that applies to such algorithms as adaptive MCMC.

**Reception each day at 3:00pm in Manchester Hall, Room 336*