# Math News at Bates 2008–2010

## David Haines completes 41 years of teaching at Bates



![](_page_1_Picture_0.jpeg)

David and Alice get a first look at his cake

# The Retirement Party

Scott Balcomb, Class of '75 and Visiting Instructor of Mathematics, and his family hosted a lovely retirement picnic at his farm. The math department and several friends joined to wish David a happy retirement, thank him for his years at Bates, and tell him we look forward to his visits.

![](_page_1_Picture_4.jpeg)

Scott tells VERY entertaining stories of his years as a Bates student, with David as his professor

![](_page_1_Picture_6.jpeg)

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# Visiting Speakers

#### 2008-2009

September 18	Ubiritan D'Ambrosio, Sampson Lecturer, UNICAMP, Campinas, Brazil
	Afternoon: The Emergence of Mathematical Research in the Early Independent
	Countries in the Americas. A Case Study: Joaquim Gomes De Souza, an
	Enigmatic Brazilian 19th Century Mathematician
	Evening: Ethnomathematics in a Global World
November 14	Scott Taylor, Colby College, CBB Seminar speaker, at Bates
April 17	Pallavi Jayawant, Bates College, CBB Seminar speaker, at Colby

q-binomial Coefficients and Unimodality

#### 2009-2010

November 10	Simon Smith, visiting mathematician Infinite Groups and Infinite Directed Graphs: Best Friends Forever
November 13	Chris Danforth '01, University of Vermont The <i>Hedonometer</i> : A Remote Sensor of Global Happiness
December 2	Robert Moses, Sampson Lecturer, <u>http://www.visionaryproject.org/mosesrobert/</u> Afternoon: Quine, Elementary School Algebra, The Regimentation or Ordinary Discourse Evening: Quality Public School Education as a Constitutional Right
March 30	Ellen Gethner, University of Colorado Denver The Art of Computation: M.C. Escher in the 21st Century
April 30	Ben Mathes, Colby College, CBB Seminar speaker, at Bowdoin Quantum Proximity

### **Department Seminars**

#### 2008-2009

November 11, November 18, December 2: Matt Salomone Critical Point Theory and N-body Problems

#### 2009-2010

September 29	Adriana Salerno Rational Points and Hypergeometric Functions
October 20	Bonnie Shulman Modeling the Sex Ratio Using Evolutionary Game Theory
December 1	Jonathan Webster Cubic Function Fields in Characteristic Three

### Senior Thesis Topics

#### 2008-2009

Dylan Mogk, "Evolutionary Algorithms: An Introduction to Multi-Objective Problem Solving" Dillon Tung: "Applying Google's Pagerank Algorithm to the Ranking of College Basketball Teams"

#### 2009-2010

Dana Bennett, "Analyzing Random Graph Properties with Probability Generating Functions"

Nick DeFrancis, "The Origin of Cooperation: Modeling Behavioral Evolution on Graphs"

Philip Greengard, "An Exploration into the Dynamical Behavior of a Complex Family of Functions"

Jason Joseph, "Galois Theory and Chromatic Polynomials"

Jean McIntyre, "An Analysis of the Motion of Fastpitch Softball Pitches"

Jeremy Muench, "Posets and the SCD"

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### Mount David Summit

Students, faculty, and friends gather to present and learn about research done during the previous year. In 2010, Philip Greengard and Nick DeFrancis presented posters at the Bates Mount David Summit.

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Math Models of Social Dilemmas (MATH 255C)

![](_page_5_Picture_1.jpeg)

![](_page_5_Picture_2.jpeg)

Poster Session at Mount David Summit

Taught by Professor Bonnie Shulman

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**Bates** College

### Events

#### 2008-2009

October 9	Ice cream social, hosted by the Math Council
October 28	Math induction: welcoming new majors to mathematics
December 1	Chris Danforth '01, from University of Vermont, gives a talk Chaos and the Mathematics of Prediction: From Hurricanes to Climate Sponsored by the Math Council, and accompanied by pizza!
March 16	Senior Seminar and Thesis discussion Food from Thai Dish
	2009-2010
October 13	Math induction, complete with catered lunch
November 5	Our own Chip Ross gives a talk and Math Council sponsors ice cream An Introduction to Dynamical Systems, Julia Sets and the Mandelbrot Set
December 10	Pizza and a viewing of Flatland: The Movie
February 25	Pizza and our annual discussion of Senior Thesis and Senior Seminar
April 1	A goodbye to David Haines: farewell celebration organized by students

### PHOTO FEATURE -

Seniors, 2010

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