About The Lecture

Salvador Dali throughout his long career was fascinated by images and concepts from science and mathematics, and he incorporated many of them into his paintings. The central object in his 1954 painting "Corpus Hypercubicus" is a Christ figure on an unfolded hypercube from the fourth dimension. That painting put me in contact with the artist, leading to a dozen meetings with him over the period 1975-85. This talk will be a personal report on insights into why Dali chose the mathematical ideas he included in his work, and how he went about constructing and carrying out his paintings. Topics include exaggerated perspective, pattern recognition, and catastrophe theory. The presentation will feature computer generated images and animations, as well as excerpts from the documentary "The Dali Dimension".

The inaugural
Daniel Bartlett Memorial Lecture
was given in 2008 by Barry Mazur,
Gerhard Gade University Professor,
Harvard University

2009: Dr. Jeff Weeks, MacArthur Fellow and 2007 winner of the AMS Conant Prize for an excellent expository publication.

MATHEMATICS
THE UNIVERSITY OF ARIZONA.

Members of the department create, communicate, and apply mathematics of the highest caliber through activities such as internationally recognized research and graduate education, award winning undergraduate programs, and extensive outreach to local schools.

The department's faculty includes two Regents' Professors, three University Distinguished Professors, and numerous recipients of national and international awards. Over the last five years, a large percentage of the faculty has been awarded grants and contracts from external funding agencies, with total awards averaging about $5 million per year.

The department offers PhD, MS, and MA programs in Mathematics and Mathematics Education, and it provides major contributions to the Graduate Interdisciplinary Degree Programs in Applied Mathematics and Statistics. It also offers several unique post-doctoral opportunities for recent PhDs planning careers in research and education.

At the undergraduate level, the department provides more than 46,000 credit hours of instruction per year and offers its more than 500 majors unparalleled opportunities for research, tutoring experiences, and internships. The undergraduate, graduate, and GIDP programs have recently been recognized with two 5-year, $3.5 million VIGRE training grants from the National Science Foundation, a distinction very few programs in the country can match.

The department has a long and excellent tradition of outreach to schools in Tucson, ranging from programs supporting high school teachers to a research center focusing on improving the mathematics education of low-income Latino students.

Through the breadth and quality of its programs, the Department of Mathematics makes major contributions to the mission of the University of Arizona and to the quality of life in Tucson and beyond.

Daniel Bartlett
Memorial Lecture
2010

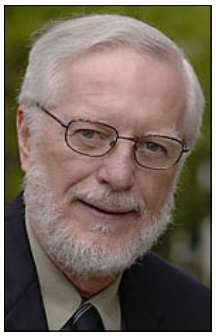
Dr. Thomas Banchoff

The Fourth Dimension and Salvador Dali

March 22, 2010
6:30 p.m.
Gallagher Theater
Student Union Memorial Center
1303 E. University Drive
The University of Arizona

THE UNIVERSITY OF ARIZONA.

About Tom Banchoff



Geometer Thomas Banchoff has been teaching at Brown University since 1967. A graduate of the University of Notre Dame, he received his Ph.D. at the University of California, Berkeley in 1964, and did post-doctoral teaching and research at Harvard University and the University of Amsterdam. At Brown, he and computer science professor Charles Strauss were among the first to produce computer animated, prize-winning films on objects in the fourth dimension. He specializes in teaching and research using interactive computer visualization techniques developed in collaboration with his students.

Dr. Banchoff is the author of numerous research publications in geometry and in the pedagogy of mathematics, as well as five books. He is widely known as an exceptionally talented teacher who has received a number of awards, including an MAA National Award for Distinguished College or University Teaching of Mathematics in 1996, the National Science Foundation Director's award for Distinguished Teaching Scholar in 2004, and the Royce Family Professorship in Teaching Excellence at Brown University, 2005-2008.

About Daniel Bartlett

Daniel Wezelman Bartlett was born November 8, 1980. He died of sudden cardiac arrest on August 8, 2006, just before commencing his fourth year of graduate school in mathematics at The University of Arizona. He was a wonderful and loving son to his parents, a close companion to his younger sister, and a fierce friend for many.

Daniel was born with physical impairments, but that didn't stop him from enjoying life. He played piano, trumpet, and shofar; he was a chess player; and he was an academic athlete, winning scholarships and contests for Academic Decathlon, economics, and the annual Shakespeare monologue competition (he loved portraying Iago). He was a proud leader in his B'rith Youth Organization.

Daniel's academic interests were not restricted to mathematics. As a junior in high school he was selected for the Telluride Association Summer Program at Cornell, an intense program in the humanities.

He graduated from University High School in Tucson both as a Presidential Scholar and a National Merit Scholarship winner.

Daniel Bartlett *continued*

Daniel loved mathematics and excelled at it all of his life. He went to Harvard for his undergraduate work, concentrating in mathematics, where his undergraduate advisor was Barry Mazur. While an undergraduate, he worked one summer at The University of Arizona Astronomy Department and another summer at the National Security Administration, where he co-authored a classified paper. He received his BA degree in 2003.

While studying for his PhD at The University of Arizona, Daniel had narrowed his research interest to the field of algebraic geometry, and at the time of his death he was beginning the work he hoped to use for his doctoral dissertation.

Daniel Bartlett Memorial Fund

Generous contributions by Daniel's family and friends have made it possible to establish this fund, whose purposes are to memorialize Daniel Bartlett, to foster awareness and appreciation of mathematics of the highest level in the Tucson community, and to support graduate education in Mathematics at The University of Arizona.