

# BAMA

School Year 2010—2011 Join us for a free talk... 2

## **Francis Edward Su**

Voting in Agreeable Societies



San Jose State University\* Engineering Auditorium, Rm. 189

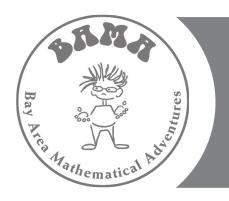
7:30 pm Wednesday, November 10

When do majorities exist? How does the geometry of the political spectrum influence the outcome? What does mathematics have to say about how people behave? When mathematical objects have a social interpretation, the associated theorems have social applications. We give examples of situations where sets model preferences, and prove extensions of classical theorems on convex sets such as Helly's theorem that can be used in the analysis of voting in "agreeable" societies. This talk also features research with undergraduates.

Francis Edward Su is a Professor of Mathematics at Harvey Mudd College, and earned his Ph.D. from Harvard University. His research is in geometric combinatorics and applications to the social sciences, and he has co-authored over a dozen papers with undergraduates. He also has a passion for teaching and popularizing mathematics. From the Mathematical Association of America(MAA), he received the 2001 Merten M. Hasse Prize for expository writing, the 2004 Henry L. Alder Award for distinguished teaching, and was the 2006 James R.C. Leitzel Lecturer. He currently serves as First Vice-President of the MAA, and is on the editorial board of the American Mathematical Monthly. In his spare time he enjoys working on his "Math Fun Facts" website, which receives over a million hits each year, and most recently an iPhone app by the same name.



<sup>\*</sup> See back for map and directions.





### Bay Area Mathematical Adventures

A series of presentations on diverse topics by remarkable mathematicians. All talks are free and open to the public.

WHY?

BAMA aims to challenge and motivate students to think mathematically. Speakers will present real mathematics, and will share with the audience modern views of mathematics. Some talks will provide students with related problems, or will enable teachers to expand later on the topics with their students.

WHO?

BAMA is aimed at bright high-school age students. However, all are welcome: younger or older students, teachers, parents, and the general public.

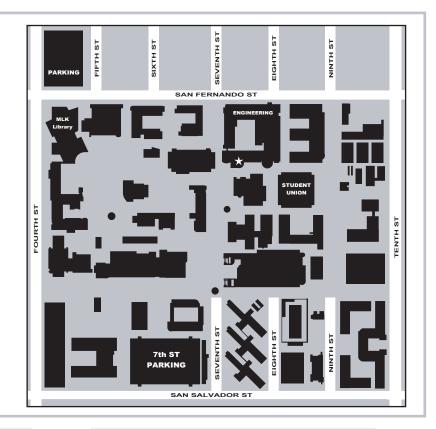
WHEN?

Evening talks will be given approximately once a month between September and April. Each talk will be self-contained (speakers will not assume their audiences have attended previous talks).

### WHERE?

# San Jose State University Engineering Auditorium 189

- From 101 take the First Street or Guadalupe Expressway exit and go to Fourth Street.
- Take Fourth to San Salvador Street; turn left onto San Salvador and park in the South Garage. The automated pay stations located on level 3 and above accept coins, \$1, \$5 and \$10 bills, Visa or Master Cards. Parking is \$1.00 per ½ hour or \$5.00 day pass after 5:30.
- From 280 take the 7th Street exit and turn North on Seventh St. The garage is on the left after 5 or 6 blocks.
- Convenient parking is also available at the Fourth Street Garage across E. San Fernando St. from the Dr. Martin Luther King, Jr. Library. Your 1st hour is free, but beyond that, a \$3 flat rate applies to cars entering after 6:00 pm.



#### **SPONSORS:**

#### San Jose State University

Department of Mathematics and College of Science

#### Santa Clara University

Department of Mathematics and Computer Science

American Institute of Mathematics

Mathematical Sciences Research Institute

#### **FOR MORE INFO:**

#### http://www.mathematicaladventures.org

#### BAMA Steering Committee:

Billing committee.		
Tatiana Shubin	SJSU	408-924-5146
Frank Farris	SCU	408-554-4430
Bradley Jackson	SJSU	408-924-5100
Gerald L. Alexanderson	SCU	408-554-6894