Bay Area Mathematical Adventures

John Stillwell

All Infinities, Great and Small

San José State UNIVERSITY

San Jose State University*
Washington Square Hall 207

7:30 pm
Friday, November 1, 2019

Infinity has been part of mathematics since ancient times and has been controversial since the beginning. At first, the controversy was about "potential" versus "actual" infinity. In the 19th century the controversy morphed into "discrete" versus "continuous" infinity and was intensified by Cantor's discovery that there are infinitely many kinds of infinity.

This led, in the 20th century, to axiom systems for set theory that attempt to clarify the notion of infinite set. The clarified notion answers many questions, but not all—in fact it is impossible to know whether certain very large sets, called inaccessible sets, exist. Even more confounding is the fact that these inaccessible sets control what is true of the real numbers, which mathematicians hoped to be completely knowable.
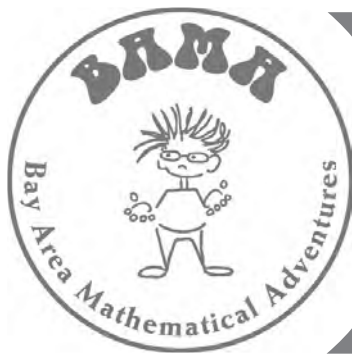
John Stillwell was born in Australia and educated at Melbourne University and MIT. After teaching for 30 years at Monash University in Melbourne, he became Professor of Mathematics at the University of San Francisco in 2002. He has written numerous books on mathematics, including "Mathematics and Its History" and "Roads to Infinity," and has given two previous BAMA talks.

* See back for map and directions.

BAMA
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.
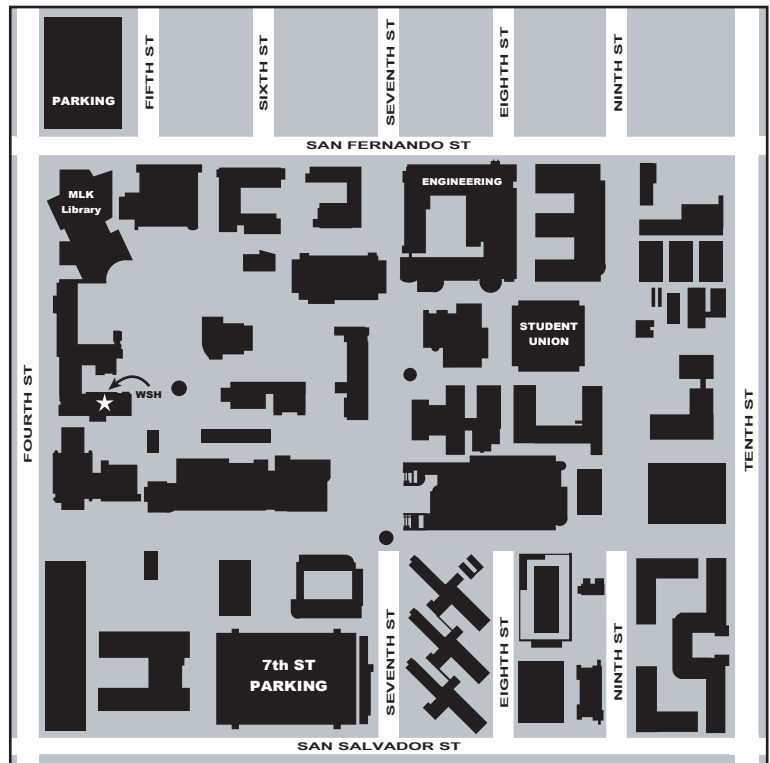
WHEN?

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
Washington Square Hall 207

• 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.

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http://www.mathematicaladventures.org

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