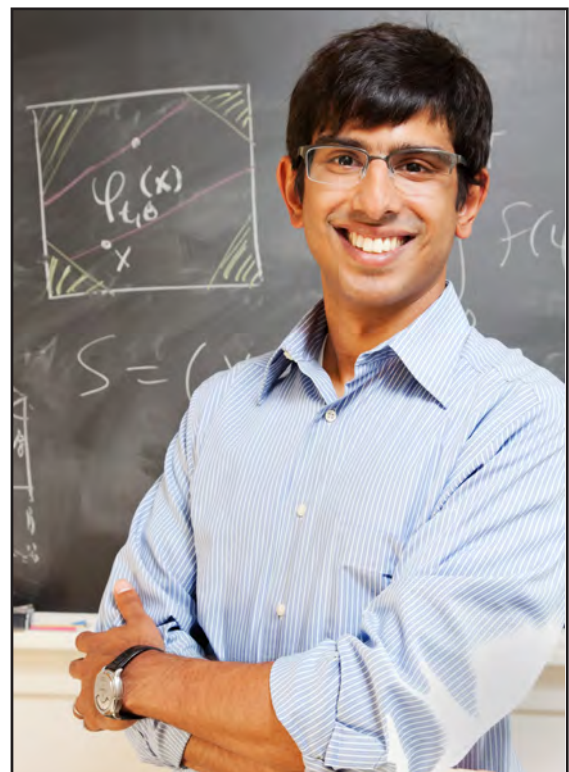# Jayadev Athreya
Benford and Billiards

Santa Clara University, Daly Science 207
Friday, September 22, 2017, 7:30 pm

If you look at the number of followers for Twitter users, you'll notice something strange: about 30 percent of them have a number of followers whose first digit is 1, about 17 percent have a number of followers whose first digit is 2, about 12 percent have a number of followers whose first digit is 3. A similar phenomenon occurs when you look at the list of US cities by population. We'll explore why this weird rule (known as Benford's Law) happens, and how the *same* mathematical phenomenon underlies why a billiard ball in a square table that never hits a corner visits every part of the table in a systematic way.
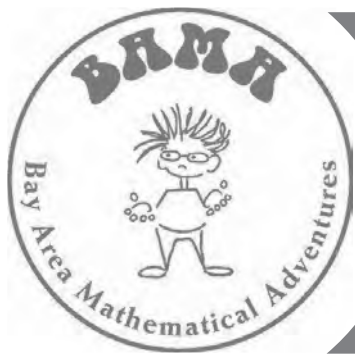There will be lots of pictures, and interactive activities.

Jayadev Athreya is an Associate Professor of Mathematics at the University of Washington and the founder and Director of the Washington Experimental Mathematics Lab (WXML). His research is on geometry, dynamics, and connections to number theory. He is passionate about deepening people's involvement in mathematics, and via the WXML facilitates undergraduate research and public engagement in Seattle and throughout the Pacific Northwest. He was previously at the University of Illinois, where he founded and directed the Illinois Geometry Lab.

* 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).
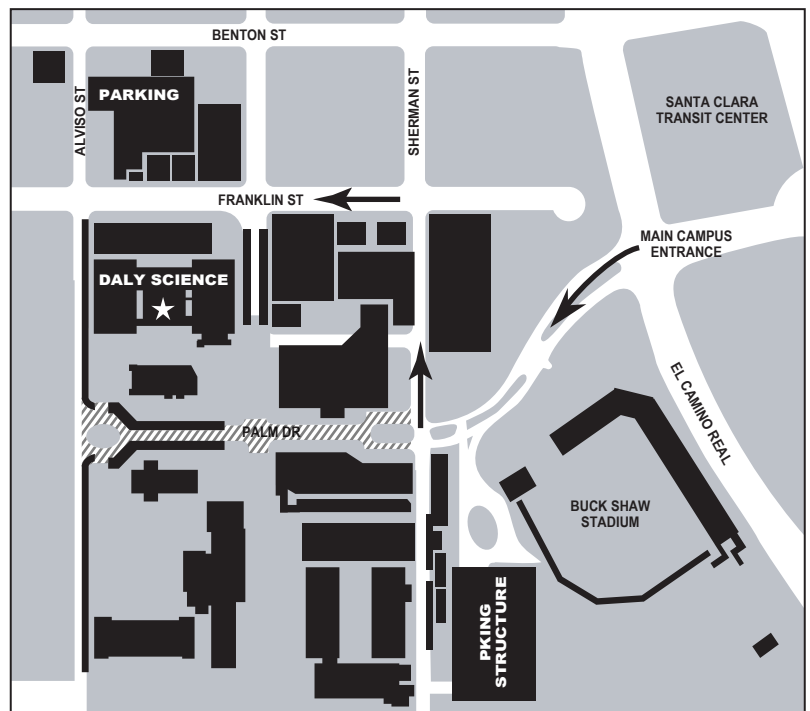
WHERE?

Santa Clara University
Daly Science, rm. 207

■ From US Highway 101, take the De La Cruz Blvd/Santa Clara exit and follow the signs to El Camino real and main campus entrance.

■ From I-280, take I-880 north toward Oakland to The Alameda exit. Turn left onto The Alameda (which becomes El Camino Real) to main campus entrance.

■ From I-880, take The Alameda exit, travel north (The Alameda becomes El Camino Real) to main campus entrance.

Note: If you arrive by car, you can go directly to the parking garage at Franklin and Alviso and purchase a permit at a self-serve kiosk. Alternatively, it is usually possible to find free street parking within a couple of blocks.
The parking garage is free after 7 pm on Fridays.

■ If you have a disability and require reasonable accommodation, please call anyone on the steering committee, or 1-800-735-2929 (TTY—California Relay) 24 hours in advance.

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