2024 MAA Missouri Section Meeting

William Jewell College, Liberty, MO
April 11-13

Thursday, April 11

7:00pm – 8:00pm
MO Section NExT reception
Audrey Burgette Room, 2nd floor of Brown Hall

7:30pm – 10:00pm
Student Competition
Yates-Gill Union 221/222

Friday April 12

8:30am – 11:00am
Student Competition
Yates-Gill Union 221/222

8:30am – 11:00am
MO Section NExT meeting
Gano Assembly

11:00am - 12:00pm
Student Competition Lunch
Phelps Dining Room (first floor of Yates-Gill Union)

12:30pm - 1:45pm
Conference Opening and First Plenary Address
Yates-Gill Union 221/222
Speaker: Allen Butler, MAA Treasurer and Member of the Board of Directors
Abstract: A statement of Bayes' Theorem (aka Bayes' Rule) can be written very succinctly, but this belies its far-reaching consequences. In this talk, I will provide a little of the history behind Bayes' Theorem, a derivation of the mathematical basis in probabilistic terms, and a description of the less formal basis where it is viewed as a form of evidential or inferential reasoning. I will illustrate the utility of Bayes' Theorem by describing applications from the work of my company, Daniel H. Wagner Associates, Inc. One of these resulted in the location and recovery of the "Ship of Gold," the SS Central America, a side-wheel steamer carrying nearly six hundred passengers returning from the California Gold Rush, which sank in a hurricane two hundred miles off the Carolina coast in September 1857.

2:00pm – 5:00pm
Contributed Talks (see schedule of abstracts for details)
Yates-Gill Union 221 and 222, Gano Assembly

6:00pm – 8:00pm
Banquet
Yates-Gill Union 221/222
Speaker: Dr. Talea Mayo, Assistant Professor of Mathematics at Emory University
Abstract: It is widely accepted that climate change will cause global mean sea level rise and increase coastal flood risk in many places. However, climate change also has significant implications for tropical cyclone climatology. Specifically, hurricane intensity, size, and translation speed are all expected to intensify in the future, and each of these influences storm surge generation and propagation. Computational modeling plays a vital role in investigating the impacts of these unobserved changes on storm surges. In this seminar, I'll discuss two computational modeling approaches we've taken to understanding what this means for storm surge risk.

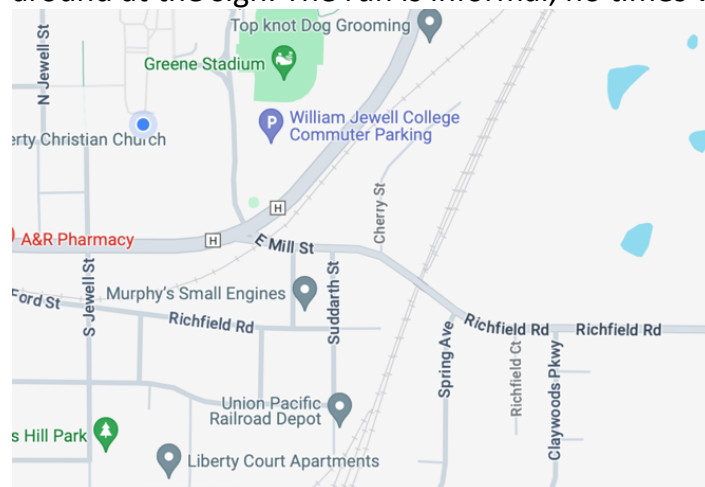*8:00pm – 9:00pm*
Executive Committee Meeting
Math Department Common Area, Marston 222

Saturday April 13

7:00am – 8:00am
5K
location: start from the intersection of Richfield Rd and Claywoods Pkwy, which is in the bottom right of the map below. Run south on Claywoods Pkwy 1.55 miles and turn around at the sign. The run is informal, no times will be taken.

9:10am – 10:50am
Contributed Talks (see schedule of abstracts for details)
Yates-Gill Union 221 and 222, Gano Assembly

11:00am – 12:00pm
Closing Plenary Address
Yates-Gill Union 221/222
Speaker: Dr. Catherine Hsu, Assistant Professor of Mathematics at Swarthmore   College
Abstract: Mathematicians love SET. On the surface, this classic game is a con test of pattern recognition, but it also presents an interesting way to visualize the geometry of a torus over a finite field. In this talk, we will discuss some of the mathematics connected to SET and then explore several new versions of the game, including one arising from projective geometry and one arising from non-abelian groups. In particular, we will see how these non-abelian variations on SET can give intuitive visualizations of abstract group structures.

Section Business meeting at the conclusion of the plenary address.
Yates-Gill Union 221/222