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# MAST MESSENGER



## Math and Stats Colloquium

**Title**: A Network Science Approach to Fungal Networks

and the "Wood Wide Web"

Speaker: Dr. Paula Mercurio, St. Olaf College

**Time**: 4:00-5:00 pm **Location**: CMC 206

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**Abstract:** As they grow, fungi naturally form underground networks from the growth of hyphae, fungal "roots" that divide and split off from each other, forming large interconnected networks over time. These networks serve a variety of functions, such as absorption and transport of nutrients, and can also interact with the roots of plants, creating the Wood Wide Web, an underground network connecting plants and trees. Network science and graph theory are useful for modeling relationships between interconnected or related items in many biological systems, particularly systems used for transportation or communication like these fungal networks. In this talk, I will discuss how we can use different tools from graph theory and network analysis techniques to investigate the relationships between plants and fungi.



#### About the speaker:

My pronouns are she/her. I have a PhD from Michigan State, and my undergrad degree is from the University of Minnesota Morris. My research is mostly in network science, using networks to model/analyze data from various applications, especially biological applications.

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## Jobs, Internships, and Other Opportunities

#### **Jobs**

#### **2024 Operations Analyst Program**

JPMorgan Chase & Company. Application due Monday, January 15, 2024.

### **Epsilon Camp 2024**

<u>Epsilon Camp</u> is a unique residential summer camp for highly gifted 7-12 year-olds with exceptional mathematical ability and a love of mathematics. We are currently in the process of recruiting our counselors for the summer of 2024. We require that all of our counselors be math majors who have taken at least some upper-division math courses; they must also be excited about working with children. Our campers study topics such as methods of proof, number theory, projective geometry, sets and functions, and group theory in classes taught by university professors, so counselors with a very strong math background are essential. Many of our counselors find it to be such a rewarding experience that they choose to return several years in a row.

Candidates for the Staff Assistant role are not required to be math majors, but math majors are welcome to apply.

Please contact Natalya Hung, Camp Director, at natalya@epsiloncamp.org with any questions.

#### **Positions:**

**Epsilon Math Camp Counselor**, Application due Friday, March 1st, 2024. **Epsilon Staff Assistant**, Application due Monday, April 1st, 2024.

## **Upcoming Events**

1/9/24	Math/Stats Colloquium, Paula Mercurio 4-5 pm in CMC 206
1/16/24	Budapest Information Meeting 3-4 pm in CMC 206
1/23/24	Math/Stats Colloquium, Lianne Siegel 4-5 pm in CMC 206
1/30/24	Prospective Math and Minor Meeting 4-5 pm in CMC 206
2/6/24	Math/Stats Colloquium, Marissa Loving 4-5 pm in CMC 206

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