MSCS Mess

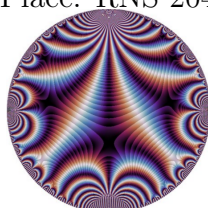### Friday's Research Seminar
Title: **L-functions, Cusp Forms, and Zero Density**
Speaker: Curtis Balz
Date: 10/7/22, 3:30pm
Place: RNS 204

Abstract: L-functions are, broadly, functions on the complex plane that are of great interest to number theorists. These L-functions can be attached to several different types of mathematical objects, such as modular forms or elliptic curves. This talk will introduce the notion of a cusp form and L-functions attached to cusp forms. These L functions are most interesting on a region of the complex plane known as the critical strip, and we will discover bounds on these L-functions that lead to nontrivial conclusions. One of the applications of the bounds gives a proof of a specific case of the Zero Density Conjecture, which can be thought of as a stepping stone to addressing conjectures such as the Riemann Hypothesis.

MSCS Students - Summer in Budapest!

Come spend a summer in Budapest to explore the Hungarian mathematics pedagogy, which emphasizes problem solving, mathematical creativity, and communication. Summer@BSME is a six-week study abroad program designed for undergraduates, recent graduates, and in-service teachers interested in the learning and teaching of secondary mathematics. Participants take mathematics education courses to learn about the Hungarian pedagogy. They also engage in a week-long field experience at a math camp, where they obtain first-hand experience on how the methods learned in the courses are put into practice. **To learn more about this exciting summer opportunity, visit** bsmeducation.com.

CS Students - Coding Interview Training

There is still time to sign up! St. Olaf is offering AlgoExpert as a resource for preparing for Code Interviews, note that it is estimated to require 150 hours of online training over 4 months. Through this you will also be able to network and have one-on-one time with CS Alumni. The certification will show proficiency in Algorithmic programming. Algorithm problems are an essential part of the interviewing

process - so it is extremely beneficial to obtain training. **The deadline to apply is Monday, October 10th at 11:55pm**. Register [here](#)! **Note that there is a 300-700 word essay required about your career goals and how you may benefit from this program**, which takes just a few moments to complete before you register.

Attention Freshmen and Sophomores! Math/Education Double Major!

Have you considered double majoring in Math and Education? The demand over Math Teachers is always high, and so over the next few issues I'll be releasing information about the Education and Math double major, including some of their more important classes and **study abroad opportunities including Hawaii and India**. If you know you are interested reach out to [Prof. Ryota Matsuura](#)! He'll have all you need to know. I'll cover things like requirements, technical details like Licensing and Partner Schools/Locations, as well as **financial grants and scholarships!** I'll also include Alumni and current students of the Math/Education Major's thoughts and feelings on where they're at today. If you just can't wait feel free to contact Prof. Ryota.