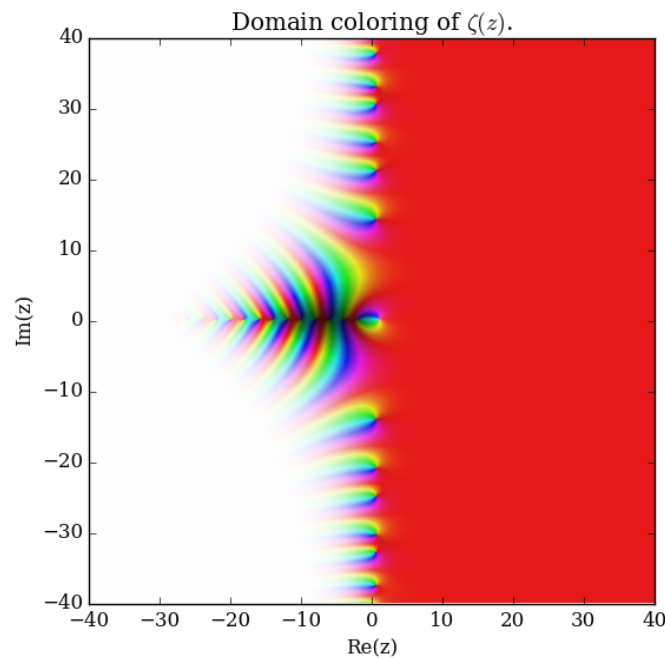


MATH 3094 (Fall 2019)

Arithmetic Functions and the Riemann Hypothesis

Riemann Hypothesis. *The nontrivial zeroes of the Riemann Zeta function $\zeta(s)$ have real part $\operatorname{Re}(s) = \frac{1}{2}$.*

This problem is of such great significance that it was included as one of seven “Millennium Prize Problems” by the Clay Mathematics Institute in the year 2000. The institute offers a **\$1 million** prize for a solution.



http://specialfunctionswiki.org/index.php/Riemann_zeta

Description of the Course: This course will serve as a build-up to understanding the statement and the significance of the Riemann Hypothesis. We will explore arithmetic functions and their relationship to Dirichlet series like the Riemann Zeta function, and throughout the course we will touch on several important results in number theory including Möbius inversion and the Prime Number Theorem.

Prerequisites: One of Math 2710, 2710W, or 2142Q.

For more information or to enroll, please contact Professor Brandon Alberts at brandon.alberts@uconn.edu.