

The SUMO Speaker Series for Undergraduates

All talks will be accessible to Freshman taking the 50-series
food from Pizza Chicago

Wednesday, October 15th

4:30-5:30, room 380C (in the basement)

Finding the Roots of Polynomials

Dr. Jonathan Wise

ABSTRACT:

The well-known quadratic formula expresses the solutions to any equation $x^2 + ax + b = 0$ in terms of the coefficients a and b using only addition, subtraction, multiplication, division, and the extraction of square roots. There solution to the cubic equation is less well-known, but can be found using the same operations as well as cube roots. In this talk, I will demonstrate the solution to the general cubic equation and then we will investigate how the solution takes advantage of symmetries in the equation. Then we will see what these ideas tell us about the quartic equation and the quintic.

contact Nathan Pflueger (pflueger@stanford.edu) for more information.