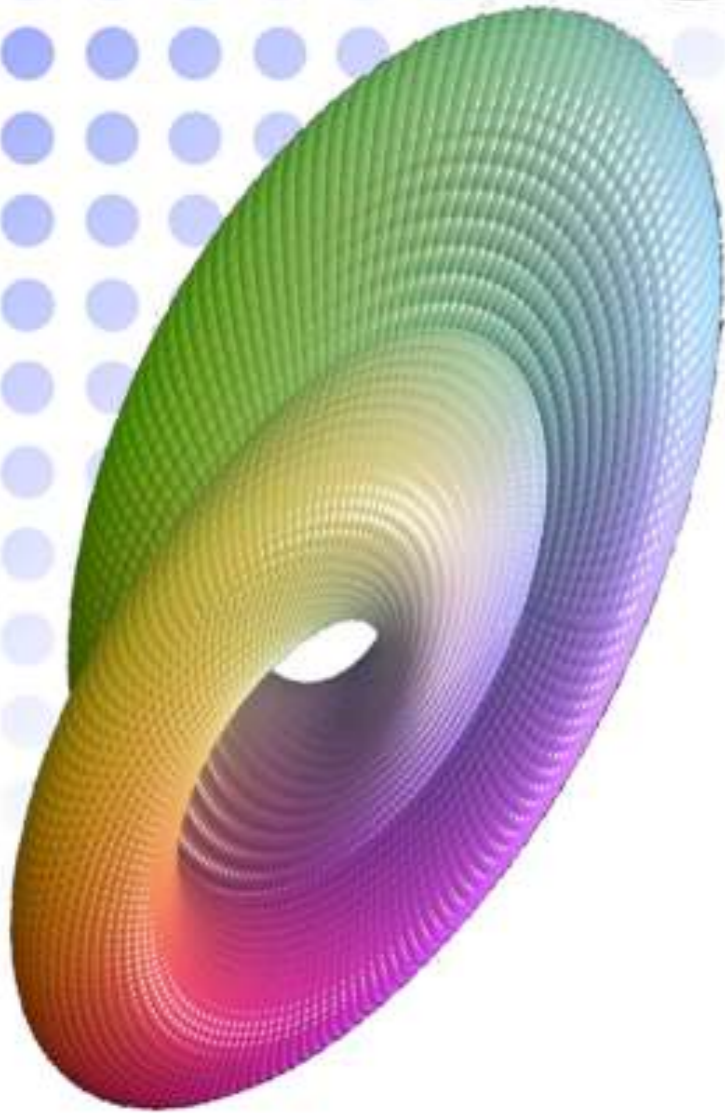


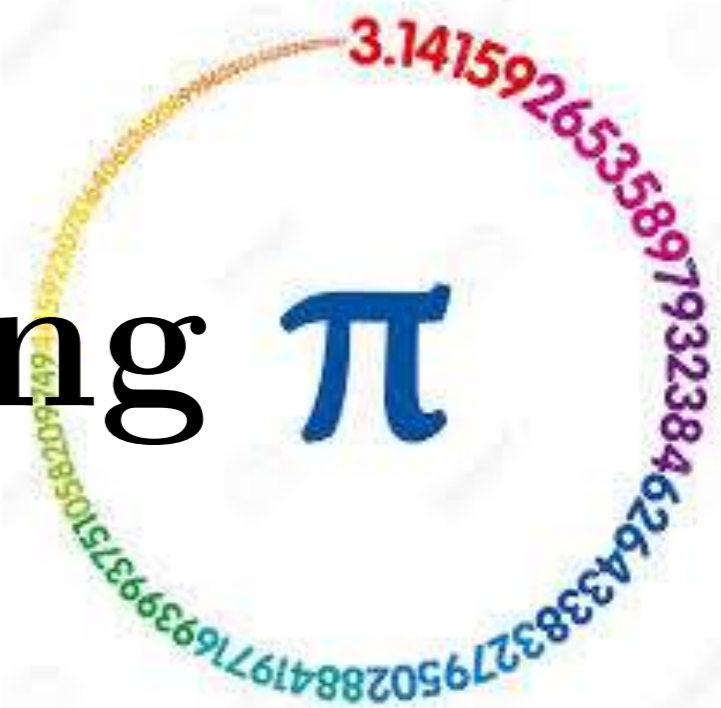
Michigan Math Club



Meeting [virtually](#) for Winter 2021
Thursdays at 4pm EST



Computing π



John Kilgore
Maxar

11 March 2021



Approximations of the ratio of a circle's circumference to its diameter have fascinated mathematicians since ancient times. I will discuss some of the history from polygon approximations of a circle to the fastest modern algorithms. There will be a heavy emphasis on the role of calculus in creating faster ways to compute π . A simple algorithm for computing π will be derived using Gauss' continued fraction for hypergeometric functions.