

Mathematics Colloquium

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Primes, Riemann, and Langlands

Abstract: Prime numbers have held a mystery over number theory since before Euclid. To introduce a powerful new tool into the subject, Riemann defined his analytic zeta function; with it, he described the Prime Number Theorem and conjectured the “Riemann’s Hypothesis”. More than 100 years later, R. P. Langlands generalized Riemann’s zeta function and—among other things—explained how “every” zeta function in number theory (whether due to Artin, or to an elliptic curve, or whatever) might be one of his generalized zeta functions. In this short talk, we shall summarize briefly the contents of the prime numbers, Riemann, and Langlands.

Wednesday, April 26

**4:00-5:00 pm
204 Smith Hall**