

MANY CHEERFUL FACTS

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Analytic Continuation and Functional Equation for the Riemann Zeta Function

a talk by Shenghao Sun

2:10–3:00pm on Tuesday, November 18, in 1015 Evans.

We will give Riemann's proof on analytic continuation and functional equation for the Riemann zeta function in detail. If there's still time left (probably not), we will mention briefly how to prove analytic continuation and function equation for L-functions of elliptic curves / cusp forms.

*I am the very model of a modern Major General,
I've information vegetable, animal, and mineral,
I know the kings of England, and I quote the fights historical
From Marathon to Waterloo, in order categorical;
I'm very well acquainted, too, with matters mathematical,
I understand equations, both the simple and quadratical,
About binomial theorem I'm teeming with a lot o' news,
With many cheerful facts about the square of the hypotenuse!*

— Gilbert & Sullivan, *P ∘ P*

The website for Many Cheerful Facts is
<http://math.berkeley.edu/~mcf/>