

The SUMO Speaker Series for Undergraduates

(Pizza Provided)

Wednesday, February 16th

4:15-5:05, room 380C

Why is the Riemann Hypothesis Important?

Professor Keith Conrad (UConn/Berkeley)

Wurzeln von $\xi(t) = 0$, multiplicirt mit $2\pi i$. Man findet nun in der That etwa so viel reelle Wurzeln innerhalb dieser Grenzen, und es ist sehr wahrscheinlich, dass alle Wurzeln reell sind. Hiervon wäre allerdings ein strenger Beweis zu wünschen; ich habe indess die Aufsuchung desselben nach einigen flüchtigen vergeblichen Versuchen vorläufig bei Seite gelassen, da er für den nächsten Zweck meiner Untersuchung entbehrlich schien.

the number of roots of $\xi(t) = 0$ in the domain multiplied by $2\pi i$. One finds in fact about this many real roots within these bounds and it is very likely that all of the roots are real. One would of course like to have a rigorous proof of this, but I have put aside the search for such a proof after some fleeting vain attempts because it is not necessary for the immediate objective of my investigation.

ABSTRACT:

The Riemann Hypothesis is considered one of the most important open problems in mathematics, but why is it such a big deal? The reason it matters so much is that it is connected to so many other questions. I will discuss the history, scope, and range of consequences of the Riemann Hypothesis.

sumo.stanford.edu/speakers