What is the Riemann Hypothesis
and why does it matter?

Ken Ono
University of Virginia

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October 14, 2021
6:00 pm (Beirut time)

Passcode: **804797**

The **Riemann hypothesis** provides insights into the distribution of prime numbers, stating that the nontrivial zeros of the Riemann zeta function have a "real part" of one-half. A proof of the hypothesis would be world news and fetch a $1 million Millennium Prize. In this lecture, **Ken Ono** will discuss the mathematical meaning of the **Riemann hypothesis** and why it matters. Along the way, he will tell tales of mysteries about prime numbers and highlight new advances. He will conclude with a discussion of recent joint work with mathematicians Michael Griffin of Brigham Young University, Larry Rolen of Georgia Tech, and Don Zagier of the Max Planck Institute, which sheds new light on this famous problem.

KEN ONO

Ono is the Thomas Jefferson Professor of Mathematics at the University of Virginia and a former Vice President of the American Mathematical Society. He is considered an expert in the theory of modular forms. His contributions include several monographs and more than 190 research and popular articles in number theory, combinatorics and algebra.

He earned his Ph.D. from UCLA and has received many awards for his research in number theory, including a Guggenheim Fellowship, a Packard Fellowship and a Sloan Research Fellowship. He was awarded a Presidential Early Career Award for Science and Engineering (PECASE) by Bill Clinton in 2000 and was named a Distinguished Teaching Scholar by the National Science Foundation in 2005. He is also a member of the US National Committee for Mathematics and the National Academy of Sciences. He is the Chair of Mathematics at the American Association for the Advancement of Science.