

1125-11-2959

Siegfried Baluyot* (sbaluyot@ur.rochester.edu), Department of Mathematics, 915 Hylan Hall, Rochester, NY 14627. *On the zeros of Riemann's zeta-function on the critical line.*

In 1942, Selberg proved that a positive proportion of the zeros of the Riemann zeta-function $\zeta(s)$ are on the critical line. Later, Levinson used a different approach to prove that the proportion is at least $1/3$. In this talk, we present a third approach to prove Selberg's theorem using an idea of Atkinson. A main ingredient of the proof is an estimate for the fourth moment of $\zeta(s)$ times a mollifier. (Received September 20, 2016)