

1014-33-578

**H. Vic Dannon\*** ([vick@adnc.com](mailto:vick@adnc.com)), CA. *Hilbert's Eighth Problem: Riemann's Zeta Hypothesis.*

The zeta function was defined by Euler in 1740, as an infinite series that converges in  $x > 1$ , and became the Riemann zeta function in 1859, when it was extended analytically to the whole complex plane (less its pole at  $z = 1$ ), through the Riemann functional equation.

In his paper about the distribution of primes, Riemann claimed that all the zeros of the zeta function  $\zeta(z)$  in the strip  $0 < x < 1$ , are on the line  $x = \frac{1}{2}$ .

Riemann's claim, became known as the Riemann Hypothesis. Hilbert presented that Hypothesis as his 8th problem. It is the only Hilbert problem that remained unsolved to date.

We prove Riemann's Zeta Hypothesis  
posted to [www.gauge-institute.org](http://www.gauge-institute.org) (Received September 20, 2005)