

# A New Idea for the Riemann Hypothesis

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December 2011.

The Riemann Hypothesis (RH) is well known. The RH is closely related with many problems of the analytic number theory. In particular, the RH shows the distribution of prime numbers in natural numbers. And the RH is also very important in the computer science, too.

Until now, there have been published many research results on the RH. For the RH, the Robin's criterion (RC) is one of the most famous theorems. This criterion is very simple and beautiful, but it doesn't prove yet.

Recently, we have obtained a new condition equivalent to the RC, which would be called an equivalence condition (EC). The EC is closely related with the RC. We have also a new idea to prove that the EC holds unconditionally. The idea is to introduce a notion, which would be called a sigma-index of the natural number.

On the bases of the idea, first, we plan to find some properties of the sigma-index. Next, we intend to estimate the difference between the consecutive primes. Finally, we would like to prove a certain inequality of the sum of divisors function.

Consequently, we would prove that the EC holds unconditionally. Our proof has the three steps and our results also consist of three papers. This result would give us a firm possibility that the RH is true. We are sure that our result would be right. But we need an objective verification on the result.

Our result is of all of our. So we would like to contribute our result to the WIKIPEDIA. We hope that our result would give the valuable help whom would like to prove the RH.

To see our papers, first find “ The sum of divisors function and The Riemann Hypothesis” Dec. 2011.

[http://commons.wikimedia.org/wiki/File:The\\_sum\\_of\\_divisors\\_function\\_and\\_the\\_Riemann\\_Hypothesis.pdf](http://commons.wikimedia.org/wiki/File:The_sum_of_divisors_function_and_the_Riemann_Hypothesis.pdf)