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**Badih N. Ghusayni\*** (bgou@u1.edu.lb). *The Completed Zeta Function and the Riemann Hypothesis*. Preliminary report.

The famous Riemann Hypothesis asserts that all the non-trivial zeros of the zeta function have real part  $1/2$ . Based on some recent computer calculations showing that the first 10 trillion non-trivial zeros have real part  $1/2$ , it may be worthwhile to look at some important consequences if the Riemann Hypothesis is true. We then phrase the Riemann hypothesis in terms of the completed zeta function and give results in that direction. (Received September 11, 2012)