1127-60-414   **Joseph Najnudel*** (`joseph.najnudel@uc.edu`), Department of Mathematical Sciences, University of Cincinnati, French Hall - 2815 Commons Way, Cincinnati, OH 45221. *On the extreme values of the Riemann zeta function on random intervals of the critical line.*

In a preprint recently submitted, we show that under the Riemann hypothesis, the supremum of the real and the imaginary parts of $\log \zeta(1/2 + it)$ for $t \in [UT - h, UT + h]$ are in the interval $(1 - \epsilon) \log \log T, (1 + \epsilon) \log \log T]$ with probability tending to 1 when T goes to infinity, if U is uniformly distributed in $[0, 1]$. For the real part, the result has been proven later by Arguin, Belius, Bourgade, Raziwill and Soundararajan without the Riemann hypothesis. However, until now, this hypothesis is still needed for the imaginary part. The result on imaginary part gives information on the fluctuations of the distribution on the zeros of the Riemann zeta function. (Received February 08, 2017)

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