

Partial sums of random multiplicative functions

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A multiplicative function is defined on the positive integers and its rule is completely determined by its values on prime powers, according with the prime factorization. A random multiplicative function is obtained by keeping the multiplicative rule and by assigning to each prime number a random variable. In this talk I am going to show some classical and new results about the partial sums of a multiplicative function, and how the (unknown) mean behavior of these partial sums is closely related with the Riemann Hypothesis. This is based on joint work with Vladas Sidoravicius.