Selberg’s central limit theorem asserts that the distribution of the logarithm of the Riemann zeta-function near the critical line is an approximate two-dimensional normal distribution. Selberg’s method and later Hejhal’s work on the distribution of \( \log \zeta'(s) \) used continuous moments to obtain results about the distribution. In this talk, we will investigate the distribution of the zeta-function and its derivative by calculating the following discrete moments

\[
\sum_{T \leq \gamma < 2T} (\log |\zeta(\rho + w)|)^k \quad \text{and} \quad \sum_{T \leq \gamma < 2T} (\log |\zeta'(\rho)|)^k.
\]

Our results are conditional on the Riemann Hypothesis together with a zero-spacing hypothesis. This is joint work with Steve Gonek. (Received September 18, 2018)