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Elliptic curves with positive rank and the Riemann zeta function

I will describe some experiments and computations that indicate that in order for an elliptic curve to acquire large rank r and have relatively small conductor, its L-function, normalized so that the critical line is $\text{Re}(s) = 1$, should behave like $1/\zeta(s)^r$. I will also describe other features of L-functions where the zeta function on the one line plays a prominent role.