

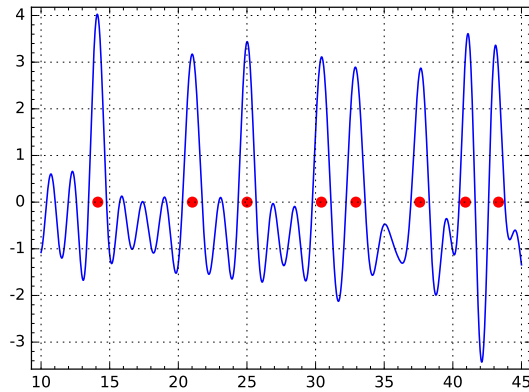
# Prime Number and Zeta Zero Spectrum

Prime powers:  $p^n = \{2, 3, 4, 5, 7, 8, 9, 11, 13, 16, 17, 19, \dots\}$

Zeta zeros:  $\rho = \{14.13, 21.02, 25.01, 30.42, 32.94, 37.59, 40.92, 43.33, \dots\}$

From prime powers to zeta zeros:

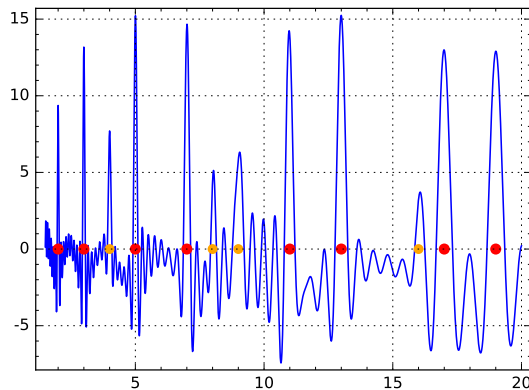
$$S_p(x) = - \sum_{p^n} \frac{\log(p)}{p^{n/2}} \cos(x \log(p^n)) \quad (1)$$



$S_p(x)$  summed over prime powers up to 50.

From zeta zeros to prime powers:

$$S_\rho(x) = - \sum_{\rho} \cos(\rho \log(x)) \quad (2)$$



$S_\rho(x)$  summed over 50 zeta zeros.