

$$\Rightarrow \text{Set } \sum_{\mathcal{Q}, R}^n = \frac{n\pi}{2} (V_{R+1}^n - V_R^n) \cdot \log\left(\frac{n}{2a} V_R^n\right)$$

Conj 2n $\sum_{\mathcal{Q}, R}^n = 1 + O\left(\frac{1}{\log n}\right)$

Thm (1) (Suzuki, W-)

$$N_{\mathcal{Q}}^2(T) = \frac{T}{a} \log T - \frac{1}{a} T (\log a + 1) + O\left(\frac{\log T}{\log^2 T}\right)$$

$$\sum_{\mathcal{Q}, R}^2 = 1 + O\left(\frac{1}{\log^2 n}\right)$$

(2) (Suzuki) Conj 1, Conj 2, Conj 3 holds.

Dominant Term

Current state: Conj 1n & Conj 2n
Should not be too different.

Yet what about the subdominant term?!!

Why Interesting: Riemann zeta zeros: Random.

In particular, by a result of Fujii,
∃ constants λ > 1 & μ < 1 s.t.

$$\frac{V_{n+1} - V_n}{2\pi / \log n} \geq \lambda \quad \& \quad \frac{V_{n+1} - V_n}{2\pi / \log n} \leq \mu$$

each holds for a positive proportion of n.

What should our subdominant term say? How to find it?!

Needed!
Computation
w/ high order
precision!!!