χ modulo m over $\mathbb{F}_q[T]$

non-trivial

$$L(s,\chi) = \sum_{n=0}^{\deg m - 1} a_n u^n, \quad u = q^{-s}$$

BRISTOL CAN HEAR ME?

1 minute!

Probably the audio problem
is in Bristol !

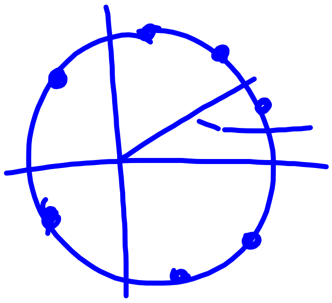
$$L(1+it,\chi) \neq 0$$

$$L(s,\chi_0) = \prod_{p|q} (\cdots)\,\zeta(s)$$

Conj.:
~~Thm~~ (classical case)

$$S_N(a,m) = \{p \text{ prime} : p \equiv a\ (m),\ p \leq N\}$$

$$\#S_N(a,m) = \frac{1}{\varphi(m)} \frac{N}{\log N} + O\left(N^{1/2+\varepsilon}\right)$$



$\frac{1}{\sqrt{2}}$

$\mathbb{F}_{q^t}[T]$

$F = \mathbb{F}_{q^t}$

K/F - function field

$\zeta_K(s)$

$\mathbb{F}_q[t]$

- $\zeta_K(s)$ is rational function.