My Name

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Moments are also intriguing objects of study in their own right!



L-functions (generalizations of the Riemann zeta-function)



Some examples:

- $L(s, \chi)$ Dirichlet L-function of a primitive character χ
- $\zeta_{\kappa}(s)$ Dedekind zeta-function of a number field K
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Moments of products of automorphic *L*-functions:

$$\int_0^T \left| L(\frac{1}{2} + it, \pi_1) \right|^{2k_1} \cdots \left| L(\frac{1}{2} + it, \pi_r) \right|^{2k_r} dt$$



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Moments in families:

$$\sum_{|d|\leq X} L(\frac{1}{2},\pi_1\otimes\chi_d)^{k_1}\cdots L(\frac{1}{2},\pi_r\otimes\chi_d)^{k_r}$$

