Ozlem Imamoglu (ETH) :

Modular integrals and Dirichlet series

Abstract : The weight two Eisenstein series is the most well known example of a modular integral. In this talk I will report on joint work with W. Duke and A. Toth where we give other examples of modular integrals. Their fourier coefficients are periods of modular functions along closed geodesics. In particular their constant coefficients can be written in terms of the regulator of quadratic fields. We also study certain Dirichlet series associated to these modular integrals and give a topological interpretation of their special values.