Discrete moments of the Riemann zeta function

In this talk I will consider the discrete moments

$$J_k(T) = \sum_{0<\gamma<T} |\zeta'(\rho)|^{2k},$$

where $\zeta(s)$ is the Riemann zeta function, $\rho = \beta + i\gamma$ is a non-trivial zero of $\zeta(s)$, and $T > 0$. In the 1980’s Steve Gonek and Dennis Hejhal (independently) studied these moments and proposed a conjecture for the size of $J_k(T)$. I will give a survey of the known results towards the Gonek-Hejhal conjecture on $J_k(T)$. If time permits, I will present several new results.

EVERYONE IS WELCOME!

Visit the seminar web page at

http://www.cs.uleth.ca/~nathanng/ntcosemninar/