THE FIELDS INSTITUTE FOR RESEARCH IN MATHEMATICAL SCIENCES

POSTDOCTORAL/GRADUATE STUDENT SEMINAR SERIES ON L-FUNCTIONS

SPEAKER:

LIEM MAI
The Fields Institute

On the Topic:

The Average Value of L-Functions at the Critical Point

For a discriminant D of a binary quadratic form, we study the average value of $L(s, \varepsilon_D)$ at the critical point $\frac{1}{2}$ where ε_D is defined by W. Kohnen and D. Zagier : $\varepsilon_D(n) = \sum_{\substack{g>0 \\ g \mid \delta, g^2 \mid n \\ (\delta/g, n/g^2)=1}} (\frac{D_0}{g^{-2}n})g$ for $n \in \mathbb{N}$ and $D = D_0\delta^2$, D_0 a fundamental discriminant and $\delta \in \mathbb{N}$. When $D = D_0$, $L(s, \varepsilon_{D_0})$ is the Dirichlet series $L(s, (\frac{D_0}{\cdot}))$. We derive an asymptotic formula for $\sum_D L(\frac{1}{2}, \varepsilon_D)$, where the sum runs over all discriminants $D \in (0, Y]$ or $[-Y, 0)$.

Wednesday, September 29, 1993

1:30 pm, Room 3018

at

The Fields Institute

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