

THE FIELDS INSTITUTE FOR RESEARCH IN MATHEMATICAL SCIENCES

POSTDOCTORAL/GRADUATE STUDENT SEMINAR SERIES ON L-FUNCTIONS

SPEAKER:

BORIS BRAUCKMANN McMaster University and The Fields Institute

On the Topic:

On the Higher Étale Tame and Wild Kernel of a Number Field

Let E be a totally real number field, l an odd prime and $F_{\infty} = E(\mu_{l^{\infty}})$ with Galois group $G_{\infty} = \text{Gal}(F_{\infty}/E)$. Then J. Coates proved the following

l-tor $K_2(O_E) \simeq A_\infty(1)^{G_\infty}$,

where $A_{\infty} = \underset{n}{\lim} A_n$, A_n the Sylow-*l*-subgroup of the ideal class group of $F_n = E(\zeta_{l^n})$. As a consequence of the Main Conjecture proven by A. Wiles one obtains up to 2-torsion

$$\zeta_E(-1) = \pm \frac{|K_2(O_E)|}{w^2(E)}.$$

We generalize Coates' result to arbitrary number fields and higher K-theory.

Thursday, December 9, 1993 (Rescheduled from November 25) 3:30 pm, Room 3018

> at The Fields Institute

185 Columbia Street West, Waterloo, Ontario, Canada N2L 5Z5 • Telephone (519) 725-0096 Fax: (519) 725-0704 Supported by the Ontario Ministry of Education and Training and the Natural Sciences and Engineering Research Council of Canada