

# **JOINT WORKSHOP ON NUMBER THEORY BETWEEN JAPAN AND TAIWAN**

at Waseda University  
From March 9 to 11, 2009

## **Supporting Organizations**

Institute of Pure and Applied Mathematics of Waseda University  
Waseda Institute for Advanced Study (WIAS)

## **Organizers**

YU, Jing (National Tsing Hua)  
KOMATSU, Kei-ichi (Waseda) HASHIMOTO, Ki-ichiro (Waseda)  
UMEGAKI, Atsuki (WIAS)

## **March 9**

### **10:00 – 10:50 MORISAWA, Takayuki (Waseda)**

A class number problem in the cyclotomic  $\mathbb{Z}_3$  extension of  $\mathbb{Q}$

### **11:10 – 12:00 AIBA, Akira (Ibaraki)**

Analogy of the Weber's class number problem  
in positive characteristic case (after Gold-Kisilevsky)

### **13:45 – 14:45 YAMAMURA, Ken (National Defense Academy)**

Showing  $h(K) = 1$  or  $K_{ur} = K$  and related topics

### **15:00 – 15:50 OKAZAKI, Ryotaro (Doshisha)**

On the sizes of relative units of the real abelian number fields  
of 2-power conductors

### **16:00 – 16:50 ASADA, Mamoru (Kyoto Institute of Tech.)**

On Galois Groups of abelian extensions of the field generated  
by  $l$ -th roots of unity for all primes  $l$

### **17:00 – 17:50 KURIHARA, Masato (Keio)**

On the Stickelberger ideals for cyclotomic fields

## March 10

**10:00 – 10:30 KODA, Hideki (Waseda)**

On hyperelliptic curves of split type and relations of Jacobstahl sums

**10:45 – 11:30 KAWACHI, Mayumi (Tokyo Metropolitan)**

Leading coefficients of isogenies of degree  $p$  over  $\mathbb{Q}_p$

**13:15 – 14:00 HASEGAWA, Takehiro (Tsuru)**

A tower of function fields related to an arithmetic geometric mean

**14:10 – 15:00 NAMIKAWA, Ken-ichi (Osaka)**

On mod  $p$  non-vanishing of special values of L-functions associated to modular forms over imaginary quadratic fields

**15:10 – 16:00 CHANG, Chieh-Yu (National Tsing Hua)**

On periods and logarithms for Drinfeld modules

**16:10 – 17:00 YU, Jing (National Tsing Hua)**

On tori and a Galois theory for special Gamma values in positive characteristic

## March 11

**10:00 – 10:50 HASHIMOTO, Ki-ichiro (Waseda)**

AB-cycles on modular curves

**11:10 – 12:00 YANG, Yifan (National Chiao Tung)**

Construction and application of a class of modular functions

**13:45 – 14:35 WANG, Chian-Jen (National Tsing Hua)**

A Representation Theoretic Approach to Zeta Function of Complexes

**14:55 – 15:45 KOBAYASHI, Shin-ichi (Nagoya)**

Integral structures on  $p$ -adic Fourier theory

**16:00 – 16:50 SUZUKI, Masatoshi (Tokyo)**

Continuous deformations of the Riemann zeta-function

**17:00 – 17:50 OKANO, Keiji (Waseda)**

The commutativity of the maximal unramified pro- $p$ -extensions over the cyclotomic  $\mathbb{Z}_p$ -extensions