December 11-15, 2010

Study workshop on the work of Skinner-Urban on the Iwasawa main conjecture for GL_2

The Hong Kong University of Science & Technology

Department of Mathematics

December 11-12 (Saturday - Sunday)
Lecture Theatre F *(through Lift 25-26)*

The Chinese University of Hong Kong

The Institute of Mathematical Sciences & Department of Mathematics

December 13-15 (Monday - Wednesday)
Room 502a, 5/F, Academic Building No. 1

In this workshop, we plan to study in detail the seminal paper by Skinner Urban on the Iwasawa main conjecture for GL_2. We would like to take this opportunity to understand the various techniques in the theory of automorphic forms on unitary groups that were introduced in their works, which have the potentiality for vast generalizations and applications to arithmetic. The lectures would be intensive and aim at focusing on the technical parts of the paper.

ORGANIZERS

Conan Leung (CUHK) **Jian-Shu Li** (HKUST) **Chung-Pang Mok** (CUHK)

LIST OF SPEAKERS

Masataka Chida (Kyoto University)
Ming Lun Hsieh (National Taiwan University)
Tetsushi Ito (Kyoto University)
Johnson Jia (University of British Columbia)
Chung Pang Mok (The Chinese University of Hong Kong)
Jeehoon Park (POSTECH, Korea)
Jonathan Pottharst (Boston University)

SPONSORS

The Institute of Mathematical Sciences, The Chinese University of Hong Kong
Department of Mathematics, The Chinese University of Hong Kong
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INQUIRY

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***Website:* http://www.ims.cuhk.edu.hk/studyworkshop/**

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TENTATIVE PROGRAM

The Hong Kong University of Science & Technology
Lecture Theatre F *(through Lift 25-26)*

December 11 (Saturday)

Time	*Speaker*	*Talk Title*
09:30 - 11:00	Ming Lun Hsieh	Overview of the proof
11:00 - 11:30	*Tea Break*	
11:30 - 13:00	Tetsushi Ito	Shimura varieties on the unitary group $GU(2, 2)$
13:00 - 14:30	*Lunch Break*	
14:30 - 16:00	Chung Pang Mok	Geometric automorphic forms on $GU(2, 2)$
16:00 - 16:30	*Tea Break*	
16:30 - 18:00	Masataka Chida	Classical Eisenstein series on $GU(2, 2)$

December 12 (Sunday)

Time	*Speaker*	*Talk Title*
09:30 - 11:00	Ming Lun Hsieh	Hida theory for $GU(2, 2)$
11:00 - 11:30	*Tea Break*	
11:30 - 13:00	Chung Pang Mok	Eisenstein ideal and p-adic L-functions
13:00 - 14:30	*Lunch break*	
14:30 - 16:00	Jonathan Pottharst	Three variable Selmer groups and their characteristic ideals
16:00 - 16:30	*Tea Break*	
16:30 - 18:00	Tetsushi Ito	Galois representations associated to automorphic forms on $GU(n, n)$ (Part I)

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December 13 (Monday)

Time	*Speaker*	*Talk Title*
09:30 - 11:00	Tetsushi Ito	Galois representations associated to automorphic forms on $GU(n, n)$ (Part II)
11:00 - 11:30	*Tea Break*	
11:30 - 13:00	Jonathan Pottharst	Formalism of Ribet's lemma
13:00 - 14:30	*Lunch Break*	
14:30 - 16:00	Jeehoon Park	Divisibility of the algebraic three-variable p-adic L-function by the Eisenstein ideal (Part I)
16:00 - 16:30	*Tea Break*	
16:30 - 18:00	Jonathan Pottharst	Divisibility of the algebraic three-variable p-adic L-function by the Eisenstein ideal (Part II)

December 14 (Tuesday)

Time	*Speaker*	*Talk Title*
09:30 - 11:00	Johnson Jia	Hermitian theta functions
11:00 - 11:30	*Tea Break*	
11:30 - 13:00	Masataka Chida	Siegel Eisenstein series
13:00 - 14:30	*Lunch Break*	
14:30 - 16:00	Jeehoon Park	Fourier-Jacobi expansions of Siegel Eisenstein series
16:00 - 16:30	*Tea Break*	
16:30 - 18:00	Ming Lun Hsieh	Choosing good sections for Siegel Eisenstein series

December 15 (Wednesday)

Time	*Speaker*	*Talk Title*
09:30 - 11:00	Masataka Chida	Fourier coefficients of Klingen Eisenstein series on $GU(2, 2)$ (Part I)
11:00 - 11:30	*Tea Break*	
11:30 - 13:00	Chung Pang Mok	Fourier coefficients of Klingen Eisenstein series on $GU(2, 2)$ (Part II)
13:00 - 14:30	*Lunch break*	
14:30 - 16:00	Jeehoon Park	Construction of three variables p-adic L-function and family of Eisenstein series
16:00 - 16:30	*Tea Break*	
16:30 - 18:00	Johnson Jia	Non-vanishing of Eisenstein series