# Japan-Korea Joint Seminar on Number Theory and Related Topics 2014

supported by JSPS and NRF

Date: November 19th - November 22nd in 2014.

16:40-17:30 Onishi, Yoshihiro (Meijo University)

genus Abelian functions

(†Poster session)

Venue: Keio University Faculty of Science and Technology, Yagami Campus.

## Program

| November | 19 ( | (Wed $.)$ | ) |
|----------|------|-----------|---|
|          | ,    | ,         | , |

| November 19 (Wed.) |  |  |
|--------------------|--|--|
| 09:25-09:30        | Opening remarks  |  |
| 09:30-10:20        | Morisawa, Takayuki (Tokyo University of Science)<br>Class Numbers in $\mathbb{Z}_S$ -extensions of $\mathbb{Q}(\sqrt{-1})$ with restricted ramification                  |  |
| 10:40-11:30        | Lee, Jun Ho (KIAS) On the unit groups of some orders generated by units  |  |
| 11:50-12:40        | Miura, Takashi (National Institute of Technology, Tsuruoka College)<br>On the Fitting ideals of the ideal class groups of non-cyclic abelian<br>CM-extensions            |  |
| -                  | (†Poster session) Lunch  |  |
| 14:20-15:10        | Hirose, Minoru (Kyoto University) The partial derivatives of abelian L-functions at s=0 and refinement of Stark conjecture   |  |
| 15:30-16:20        | Sano, Takamichi (Keio University)<br>On arithmetic properties of Rubin-Stark elements  |  |
| 16:40-17:30        | Moon, Hyunsuk (Kyungpook National University)<br>On the invariant $M(A_{/K}, n)$ of Chen-Kuan for Galois representations   |  |
| -                  | $(^{\dagger}$ Poster session)  |  |
| November 20 (Thu.) |  |  |
| 09:30-10:20        | Ha, Junsoo (KIAS)<br>Smooth Polynomial solutions to $X+Y=Z$ over finite fields   |  |
| 10:40-11:30        | Jeong, Sangtae (Inha University)<br>Criteria of measure-preservation for 1-Lipschitz functions on $\mathbb{F}_q[[T]]$ in terms of van der Put basis and its applications |  |
| 11:50-12:40        | Park, Jeehoon (POSTECH) Batalin-Vilkoviski algebra for hypersurfaces and period integrals  |  |
| -                  | (†Poster session) Lunch  |  |
| 14:20-15:10        | Lee, Dong Uk (IBS, Center for Geometry and Physics)<br>Nonemptiness of Newton strata of Shimura varieties of Hodge type  |  |
| 15:30-16:20        | Shin, Donghwa (Hankuk University of Foreign Studies)<br>Generation of class fields by using the Weber function   |  |
|                    |  |  |

New addition formulae for Weierstrass elliptic functions and for higher

††Banquet

# November 21 (Fri.)

| 09:30-10:20 | Sato, Nobuo (Kyoto University) A refinement of Zagier's conjecture for imaginary quadratic fields                                      |
|-------------|--|
| 10:40-11:30 | Yamamoto, Shuji (Keio University)<br>On Kawashima's functions  |
| 11:50-12:40 | Lee, Jungyun (Ewha Womans University) Indivisibility of class numbers of real quadratic function fields                                |
| -           | (†Poster session) Lunch  |
| 14:20-15:10 | Jun, Byungheup (Yonsei University)<br>Todd series for nonreduced cones, Q-invariance and its application to<br>Fukuhara-Yui conjecture |
| 15:30-16:20 | Yamana, Shunsuke (Kyushu University) Poles of the twisted exterior cube L-functions for GL(6)  |
| 16:40-17:30 | Narita, Hiro-aki (Kumamoto University)<br>Lifting to an inner form of GL(4) and counterexamples of the<br>Ramanujan conjecture         |
| 17:50-18:40 | Choi, Dohoon (Korea Aerospace University) Quantum modular forms and Eichler-Shimura cohomology theory                                  |
| -           | (†Poster session)  |
|             |  |

## November 22 (Sat.)

| 09:30-10:20 | Lee, Yoonbok (Incheon National University)<br>Simple zeros of primitive Dirichlet L-functions and the asymptotic large<br>sieve (Joint work with Chandee, Liu and Radziwill) |
|-------------|--|
| 10:40-11:30 | Otsubo, Noriyuki (Chiba University)<br>CM regulators, values of L-functions and hypergeometric functions   |
| 11:50-12:40 | Chida, Masataka (Kyoto University)<br>Regulators and special values of Rankin-Selberg L-functions  |
| _           | (†Poster session) Closing remarks  |

#### Notes

#### **Organizers**

Kashio, Tomokazu (Tokyo University of Science), Sun, Hae-Sang (Chungbuk National University), Bannai, Kenichi (Keio University), Mizusawa, Yasushi (Nagoya Institute of Technology), Taguchi, Yuichiro (Kyushu University), Yamagami, Atsushi (Soka University)

<sup>&</sup>lt;sup>†</sup> There will be a poster session each day. The detail information will be announced on the web page http://www.rs.tus.ac.jp/a25594/JKNT2014e.html.

 $<sup>^{\</sup>dagger\dagger}$  There will be Conference dinner on November 20th. Please let me know by November 13th if you would like to attend.