

p -adic cohomology and arithmetic geometry 2019

2019 November 11–15

Tohoku University, Katahira campus, Tokyo Electron House of Creativity, 3rd floor

Program

November 11, Monday

9:30–10:00 Registration

10:00–11:00 **Tsuji, Takeshi** (University of Tokyo)

Coefficients in integral p -adic Hodge theory via generalized A_{inf} -representations

11:15–12:15 **Yamazaki, Takao** (Tohoku University)

Lax tensor products for reciprocity sheaves

Lunch Break

13:30–14:30 **Yasuda, Seidai** (Osaka University)

Integral structures of two dimensional crystalline representations

15:00–16:00 **Bannai, Kenichi** (Keio University/RIKEN)

On the p -adic polylogarithm function for totally real fields

November 12, Tuesday

10:00–11:00 **Otabe, Shusuke** (Kavli IPMU, University of Tokyo)

Embedding problems for stacky curves in positive characteristic

11:15–12:15 **Ardakov, Konstantin** (University of Oxford)

Irreducibility of global sections of Drinfeld line bundles

Lunch Break

13:30–14:30 **Vlasenko, Masha** (IMPAN Warsaw)

Dwork crystals

15:00–16:00 **Pulita, Andrea** (Université Grenoble Alpes)

Cohomology with compact supports of differential equations on smooth Berkovich curves

16:15–17:15 **Asakura, Masanori** (Hokkaido University)

A generalization of Ross symbol in higher K-groups and p -adic hypergeometric functions

November 13, Wednesday

9:45–10:45 **Kedlaya, Kiran** (University of California)

Etale and crystalline companions 1

11:00–12:00 **Kedlaya, Kiran** (University of California)

Etale and crystalline companions 2

Excursion

Reception at an izakaya

November 14, Thursday

10:00–11:00 **Kato, Fumiharu** (Tokyo Institute of Technology)

Toward rigid analytic approach to uniform non-archimedean Pila-Wilkie type theorems

11:15–12:15 **Achinger, Piotr** (IMPAN Warsaw)

Canonical liftings and log structures

Lunch Break

13:30–14:30 **Caro, Daniel** (Université de Caen)

Arithmetic D-modules over Laurent series fields

15:00–16:00 **Huyghe, Christine** (Université de Strasbourg)

Arithmetic D-modules and representations of the crystalline distribution algebra

16:15–17:15 **Nakkajima, Yuki Yoshi** (Tokyo Denki University)

The action of the crystalline Weil-Deligne group on the infinitesimal cohomology in mixed characteristics

November 15, Friday

10:00–11:00 **Welliaveetil, John** (Kavli IPMU, University of Tokyo)

Constructibility in non-Archimedean geometry

11:15–12:15 **Crew, Richard** (University of Florida)

Nilpotent arithmetic D-modules

14:00– Free discussion

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Organizers: Tomoyuki Abe, Yuki Yoshi Nakkajima, Atsushi Shiho, Nobuo Tsuzuki