

# Diophantine Analysis and Related Fields 2023

## 世話人

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## 会場責任者

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## Organizers

Shigeki Akiyama (Univ. Tsukuba), Masaaki Amou (Gunma Univ.),  
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Noriko Hirata-Kohno (Nihon Univ.), Leo Murata (Meiji Gakuin Univ.)

## Local Organizers

Hiromi Ei (Hirosaki Univ.), Yohei Tachiya (Hirosaki Univ.)

## 記

日時: 2023 年 3 月 3 日 (金) 14:30 – 3 月 5 日 (日) 12:30

場所: 弘前大学 文京町キャンパス 理工学部 2 号館 2 階 第 11 講義室

支援: 本研究集会は JSPS 科研費 JP21H00989, JP20K03528, JP21K03171,  
JP22K03263, JP22K03271 および東京理科大学理学部, 弘前大学理工学部  
より一部助成を受けております

Date: March 3 (Fri) 14:30 – March 5 (Sun) 12:30, 2023

Place: Room 11, 2nd Floor, Faculty of Science and Technology Bldg. No. 2,  
Bunkyo-cho Campus, Hirosaki University, Japan

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## プログラム

3 月 3 日 (金) [Friday 3rd March]

14:20–14:30 開会 [Opening]

14:30–15:20 **István Pink** (Univ. Debrecen)  
Number of solutions to a special type of unit equations  
in two unknowns II

15:40–16:30 川田 浩一 (岩手大学) [**Koichi Kawada** (Iwate Univ.)]  
An overview of the Waring-Goldbach problem

16:50–17:30 鶴尾 勇介 (日本大学) [**Yusuke Washio** (Nihon Univ.)]  
A linear independence measure of polylogarithms relying  
on Padé approximation

3月4日(土) [Saturday 4th March]

- 9:30-10:20 **Daniel Duverney** (Baggio Engineering School)  
Sylvester sequence, irrationality and transcendence
- 10:40-11:30 **Dong Han Kim** (Dongguk Univ.)  
The Markoff spectrum on the Hecke group
- 11:50-12:30 井手 春希, 田中 孝明 (慶應義塾大学) [**Haruki Ide, Taka-aki Tanaka** (Keio Univ.)]  
Mahler's method for algebraic independence of partial  
derivatives of certain series in several variables
- 14:30-15:20 **Damien Jamet** (Univ. Lorraine)  
On a probabilistic extension of the Oldenburger-Kolakoski sequence
- 15:40-16:20 伊藤 弘明 (筑波大学) [**Hiroaki Ito** (Univ. Tsukuba)]  
Symmetry of continued fraction algorithms
- 16:40-17:20 斎藤 耕太 (筑波大学) [**Kota Saito** (Univ. Tsukuba)]  
Finiteness of solutions of Diophantine equations on  
Piatetski-Shapiro sequences

3月5日(日) [Sunday 5th March]

- 9:30-10:20 **Pierre Popoli** (Univ. Lorraine)  
On the binary digits of  $n$  and  $n^2$
- 10:40-11:30 川島 誠 (日本大学) [**Makoto Kawashima** (Nihon Univ.)]  
On arithmetic properties of hypergeometric functions
- 11:50-12:30 **Fan Wen** (Univ. Tsukuba)  
Hausdorff dimension on Markoff-Lagrange problem
- 12:30-12:40 閉会 [Closing]