

- Collaborative works are presented by the underlined authors. The talks with \* mark are presented through document camera, while  $\flat$  marks denote presentations on whiteboards. The speakers with  $\star$  marks are professors emeriti.

## Foundation of Mathematics and History of Mathematics

September 27th (Sat) Conference Room IX

### 9:30–11:40

- 01-99-0003  
1 Takashi Oyabu  $\flat$  Theory of  $H$ -theorems, and other 5 talks ..... 5
- 01-99-0002  
2 Yoshifumi Ito (Univ. of Tokushima $\star$ ) Definition and existence theorem of the concept of ordinal numbers ..... 15
- 01-01-0014  
3 Makoto Kikuchi (Kobe Univ.) On the constructive nature of the incompleteness theorem ..... 15  
Sakaé Fuchino (Kobe Univ.)
- 01-01-0015  
4 Makoto Kikuchi (Kobe Univ.) On theorems and proofs in nonstandard models of arithmetic ..... 15  
Taishi Kurahashi  
(Kisarazu Nat. Coll. of Tech.)
- 01-99-0004  
5 Kazuyuki Tanaka (Tohoku Univ.) Phase transitions and reverse mathematics ..... 15  
Florian Pelupessy (Tohoku Univ.)
- 01-01-0003  
6 Toshio Suzuki (Tokyo Metro. Univ.) Equilibrium points of an AND-OR tree: under constraints on probability ..... 15  
Yoshinao Niida (Patent Result Co.)
- 01-01-0013  
7 Kohtaro Tadaki (Chuo Univ.) Reformulating quantum mechanics by algorithmic randomness ..... 15
- 01-01-0020  
8 Hiroyuki Ota (Univ. of Tokyo) Small complexity classes for computable analysis ..... 15  
Akitoshi Kawamura (Univ. of Tokyo)

### 14:15–15:40

- 01-01-0008  
9 Takayuki Kihara (JAIST)  $\sigma$ -homeomorphism types and point degree spectra of infinite dimensional spaces ..... 15  
Arno Pauly (Univ. of Cambridge)
- 01-01-0016  
10 Sakaé Fuchino (Kobe Univ.) Almost continuity of Baire functions ..... 15
- 01-01-0009  
11 Hiroaki Minami The dominating number of  $F_\sigma$  ideals on Katětov–Blass order ..... 15  
Hiroshi Sakai (Kobe Univ.)
- 01-01-0005  
12 Yoshihiro Abe (Kanagawa Univ.) Rigidity and weakly normal ideals on  $\mathcal{P}_\kappa\lambda$  ..... 15
- 01-01-0006  
13 Toshimichi Usuba (Kobe Univ.) Set-theoretic geology in HOD ..... 15

### 16:00–17:00 Talk invited by Section on Foundation and History of Mathematics

- 01-02-0001  
Daisuke Ikegami (Kobe Univ.) Gödel's program, large cardinals, and forcing axioms

## September 28th (Sun) Conference Room IX

**9:30–11:30**

01-01-0011

14 Koichiro Ikeda (Hosei Univ.) Simplicity and the strong order property of generic structures . . . . . 15

01-01-0018

15 Hirotaka Kikyo (Kobe Univ.) On model complete generic structures . . . . . 15

01-01-0012

16 Munehiro Kobayashi On the equivalence of dividing and forking in  $NTP_2$  theories . . . . . 15

(Univ. of Tsukuba)

Akito Tsuboi (Univ. of Tsukuba)

01-01-0017

17 Toshihiko Kurata (Hosei Univ.) Categorical equivalence between concrete domains and sheaves . . . . . 15

01-01-0019

18 Katsuhiko Sano (JAIST) Cut-elimination theorem for Belnap–Dunn’s four-valued logic . . . . . 15

01-01-0004

19 Nobu-Yuki Suzuki (Shizuoka Univ.) The independence of existence and disjunction properties in intermediate predicate logics . . . . . 15

01-01-0010

20 Ryo Kashima (Tokyo Tech) On semilattice relevant logics . . . . . 15

**11:30–12:00 Research Section Assembly****14:15–14:45 Mathematics History Team Meeting Part 1 — “Kyouhou Japanese Map”****15:00–16:10**

01-01-0007

21 Shunzi Horiguchi A discovery of the Shimizu style surveying secret book — Considerations from the connections of the surveyors and religions— . . . . . 15

(Niigata Sangyo Univ.)

Tetsuaki Shimotomai

01-99-0001

22 Shotaro Tanaka <sup>b</sup> Methods for power series expansions of rational functions. Strictness and handiness of their methods . . . . . 15

01-01-0001

23 Shigeru Masuda La valeur particuliere and the eigenvalue . . . . . 15

(Res. Workshop of Classical Fluid Dynamics)

01-01-0002

24 Shigeru Masuda Prévost’s study preceding Fourier of heat communication in the history of physico-mathematics . . . . . 15

(Res. Workshop of Classical Fluid Dynamics)

**16:10–16:40 Mathematics History Team Meeting Part 2 — Other Topics**