

# Real Analysis

September 24th (Tue)

## 9:00–12:05

- 1 Fumiaki Kohsaka (Oita Univ.)<sup>#</sup> Saddle points of two variable functions and fixed points of nonlinear mappings ..... 15
- 2 Ryotaro Tanaka (Niigata Univ.)<sup>#</sup> Orthonormal bases for finite dimensional normed linear spaces ..... 10  
Kichi-Suke Saito (Niigata Univ.)
- 3 Ryotaro Tanaka (Niigata Univ.)<sup>#</sup> The norm structure of finite dimensional spaces ..... 15  
Kichi-Suke Saito (Niigata Univ.)
- 4 Yasunori Kimura (Toho Univ.)<sup>#</sup> Convergence of approximate sequences generated by the shrinking projection method with errors ..... 15
- 5 Sachiko Atsushiba<sup>#</sup> Attractive point and convergence theorems for families of nonlinear mappings ..... 15  
(Univ. of Yamanashi)
- 6 Yasuji Takahashi<sup>\*</sup> On a new geometric constant of a Banach space ..... 15  
(Okayama Pref. Univ.\*)  
Mikio Kato (Shinshu Univ.)
- 7 Yasuyuki Oka<sup>#</sup> The Schwartz kernel theorem for the tempered distributions on the Heisenberg group ..... 15  
(Kushiro Nat. Coll. of Tech.)
- 8 Machihara Shuji (Saitama Univ.)<sup>#</sup> Logarithmic Hardy inequalities on Sobolev–Lorentz–Zygmund spaces in the limiting case ..... 20  
Tohru Ozawa (Waseda Univ.)  
Hidemitsu Wadade (Gifu Univ.)
- 9 Takanori Yamamoto<sup>\*</sup> Normal singular integral operators with Cauchy kernel on  $L^2$  ..... 15  
(Hokkai-Gakuen Univ.)  
Takahiko Nakazi  
(Hokusei Gakuen Univ.)
- 10 Toshikazu Watanabe (Niigata Univ.)<sup>#</sup> Note on the regularity of non-additive measure ..... 15
- 11 Jun Kawabe (Shinshu Univ.)<sup>#</sup> The Choquet integral representation problem ..... 15

## 14:20–16:15

- 12 Gaku Sadasue (Osaka Kyoiku Univ.)<sup>#</sup> Pointwise multipliers on martingale Campanato spaces ..... 15  
Eiichi Nakai (Ibaraki Univ.)
- 13 Gaku Sadasue (Osaka Kyoiku Univ.)<sup>#</sup> Maximal function on generalized martingale Lebesgue spaces with variable exponent ..... 10  
Eiichi Nakai (Ibaraki Univ.)
- 14 Aoi Honda (Kyushu Inst. of Tech.)<sup>#</sup> Doubling dimension and Linearity of the sequence space  $\Lambda_2(f)$  ..... 15  
Yoshiaki Okazaki  
(Kyushu Inst. of Tech.)  
Hiroshi Sato (Kyushu Univ.\*)
- 15 Yoshihiro Sawano (Tokyo Metro. Univ.)<sup>#</sup> A remark on Morrey spaces for metric measure spaces ..... 10  
Tetsu Shimomura (Hiroshima Univ.)
- 16 Katsuo Matsuoka (Nihon Univ.)<sup>#</sup> On the boundedness for commutators in  $B_\sigma$ -Morrey spaces ..... 15

- 17 Hiroki Saito (Tokyo Metro. Univ.)<sup>#</sup> Directional maximal operators and radial weights on the plane . . . . . 10  
Hitoshi Tanaka (Univ. of Tokyo)
- 18 Hitoshi Tanaka (Univ. of Tokyo)<sup>#</sup> A characterization of two-weight trace inequalities for positive dyadic operators in the upper triangle case . . . . . 15
- 19 Yuichi Kanjin (Kanazawa Univ.)<sup>#</sup> On orthogonal polynomial expansions with nonnegative Fourier coefficients . . . . . 15

**16:30–17:30 Talk invited by Real Analysis Section**

- Shinya Moritoh (Nara Women's Univ.)<sup>\*</sup> Microlocal Besov spaces and dominating mixed smoothness

September 25th (Wed)

**9:00–11:55**

- 20 Akio Ito (Kinki Univ.)<sup>#</sup> Large-time behavior of non-negative time-global solutions to ODE system describing cardiac hypertrophy . . . . . 15  
Kazuhiko Yamamoto (Kinki Univ.)
- 21 Kota Kumazaki<sup>#</sup> Large time behavior of a solution for carbon dioxide transport model in concrete carbonation process . . . . . 15  
(Tomakomai Nat. Coll. of Tech.)
- 22 Takesi Fukao (Kyoto Univ. of Edu.)<sup>#</sup> Application to nonlinear PDE of the abstract theory of variational inequality . . . . . 15  
Nobuyuki Kenmochi (Bukkyo Univ.)
- 23 Yutaka Tsuzuki (Tokyo Univ. of Sci.)<sup>#</sup> Solvability of  $p$ -Laplace heat equations with unbounded obstacles coupled with Navier–Stokes equations . . . . . 15
- 24 Shun Uchida (Waseda Univ.)<sup>#</sup> The solvability of double-diffusive convection system coupled with Brinkman–Forchheimer equations under the Neumann boundary condition . . . . . 15  
Mitsuharu Ôtani (Waseda Univ.)
- 25 Ken Shirakawa (Chiba Univ.)<sup>#</sup> Smoothing effects and energy dissipations for parabolic systems associated with grain boundary motions . . . . . 15  
Hiroshi Watanabe (Salesian Polytech.)  
Jose Salvador Moll (Univ. Valencia)
- 26 Hiroshi Watanabe (Salesian Polytech.)<sup>#</sup> Qualitative properties for a one dimensional grain boundary motion model with degeneracy . . . . . 15  
Ken Shirakawa (Chiba Univ.)
- 27 Noriaki Yamazaki (Kanagawa Univ.)<sup>#</sup> Control problems of phase field systems associated with total variation energy . . . . . 15  
Ken Shirakawa (Chiba Univ.)
- 28 Makoto Nakamura (Yamagata Univ.)<sup>\*</sup> The Cauchy problem for nonlinear Klein–Gordon equations in de Sitter spacetime . . . . . 10
- 29 Makoto Nakamura (Yamagata Univ.)<sup>\*</sup> Remarks on a weighted energy estimate and its application to nonlinear wave equations in one space dimension . . . . . 10
- 30 Yoshifumi Ito (Univ. of Tokushima)<sup>\*</sup><sup>#</sup> Fourier transformation of  $L^2_{loc}$ -functions and its applications . . . . . 8
- 31 Yoshifumi Ito (Univ. of Tokushima)<sup>\*</sup><sup>#</sup> What is the impact force? . . . . . 7

**13:00–13:15**

- 32 Yoshifumi Ito (Univ. of Tokushima)<sup>\*</sup><sup>#</sup> The study on the phenomena of infinitely deep potential well in the view point of the natural statistical physics . . . . . 8
- 33 Yoshifumi Ito (Univ. of Tokushima)<sup>\*</sup> The study on the motion of the system of free particles in the view point of the natural statistical physics . . . . . 7

**13:20–14:20 Talk invited by Real Analysis Section**

- Risei Kano (Kochi Univ.)<sup>#</sup> The existence of solutions for the tumor invasion models