

The 13th Graduate Student Workshop on Mathematics

July 30 – August 1, 2019

Room E408, Department of Mathematics, Osaka City University

Program

July 30 (Tue.)

13:30–13:45 **Group photo & Opening**

Chairperson: Masashi Yasumoto (OCAMI)

13:45–14:00 Masahiro Morimoto (Osaka City University, D3)

On weakly reflective PF submanifolds in Hilbert spaces

14:00–14:15 Hoyoung Jeong (Pusan National University, D4)

Space-like Hyperurfaces Having Zero Mean Curvature in L^4 with two metrics

14:15–14:30 Luis Pedro Castellanos Moscoso (Osaka City University, D1)

A classification of left-invariant symplectic structures on some Lie groups

Chairperson: Sam Nelson (Claremont McKenna College)

14:45–15:00 Kiwoong Kwon (Kyungpook National University, D1)

Graded t -Schreier Domain and Its Application to Semigroup Rings

15:00–15:15 Hyein Choi (Pusan National University, M2)

Observation on the multiplicity graph of an association scheme

15:15–15:30 Jan Kim (Pusan National University, D2)

Non-residually finite groups as direct limits of relatively hyperbolic groups

Chairperson: Shin'ya Okazaki (OCAMI)

15:45–16:00 Byeorhi Kim (Kyungpook National University, D4)

On relation between group extensions and quandle extensions of a group

16:00–16:15 Yuta Taniguchi (Osaka City University, M1)

Quandle Presentation

16:15–16:30 Minju Seo (Pusan National University, D1)

Quandle coloring quivers of surface-links via marked graph diagrams

Chairperson: Kengo Kawamura (OCAMI)

16:45–17:00 Fumichika Takamizo (Osaka City University, D2)

Finite β -expansion and odometers

17:00–17:15 Hirotaka Kai (Osaka City University, M2)

Diffusion process on manifolds

17:15–17:30 Ryoya Tamaki (Osaka City University, M1)

Kolmogorov's zero-one law from a game-theoretic viewpoint

July 31 (Wed.)

Chairperson: Yukihiro Seki (OCAMI)

13:30–13:45 Naoki Hamamoto (Osaka City University, D6)
Sharp Hardy-Leray and Rellich-Leray inequalities for solenoidal fields

13:45–14:00 Jinsoo Kim (Kyungpook National University, M2)
Extreme symmetric 4-linear forms on the plane with the supremum norm

14:00–14:15 Teruya Matsuura (Osaka City University, M2)
Boundary blowing-up solutions to some semilinear elliptic equations

14:15–14:30 Sadaf Habibi (Osaka City University, M2)
A priori estimates for singular radial solutions to some semilinear elliptic equations with super critical growth

Chairperson: Sukuse Abe (OCAMI)

14:45–15:00 David Iván Hernández Granados (IPICYT, D2)
Using graphs to the characterization of lncRNAs

15:00–15:15 Kazuaki Ogiwara (Osaka City University, M2)
Smooth torus orbit closures in the Grassmannians

15:15–15:30 Sanghoon Park (Pusan National University, M2)
An introduction to persistent homology

Chairperson: Mark H. Siggers (Kyungpook National University)

15:45–16:00 Yonghyeon Jeon (Kyungpook National University, D4)
Numerical Comparison of one-step method and multi-step method

16:00–16:15 Hyobeen Kim (Kyungpook National University, M2)
Notes on list signed H -colouring

16:15–16:30 Yoseb Kang (Kyungpook National University, D1)
Multistability and periodic attractors of a nonsmooth atopical dermatitis system

Chairperson: Hideo Takioka (Kobe University)

16:45–17:00 Ryoya Kai (Osaka City University, M2)
Commensurability of non-arithmetic hyperbolic 3-manifolds

17:00–17:15 Tamotsu Baseda (Osaka City University, M1)
Tangle surgeries which preserve the \mathbb{Q} polynomial of links

17:15–17:30 Suhyeon Jeong (Pusan National University, D3)
Psybrackets and Pseudoknots

August 1 (Thu.)

10:40–11:10 **Award Ceremony**