

All plenary talks in Lecture Hall on the second floor, Shiing-Shen Building. Three parallel sessions of contributed talks in Seminar Room 212, Seminar Room 214 and Seminar Room 216. Tea time 10:20-10:40 in the morning and 14:50-15:10 in the afternoon.

Jan. 25

8:10-8:30

Opening session

8:30-9:20

Hao Zheng (SUN YAT-SEN Univ.)

Categorification of representations of quantum groups

Chair: Ki Hyoung Ko (KAIST)

9:30-10:20

Shin Satoh (Kobe Univ.)

Application of length of quandle 3-cocycle to surface-knot theory

Chair: Zhi Lu (Fudan Univ.)

10:20-10:40

Photo

Chair: Honghai LU (CIM)

10:40-11:30

Taehee Kim (Konkuk Univ.)

The cobordism on homology cylinders and torsions

Chair: Seiichi Kamada (Hiroshima Univ.)

Seminar Room 212

14:00-14:25

Byung Hee An(KAIST)

A family of braids with large conjugacy invariant sets

14:25-14:50

Masahide Iwakiri (Osaka City Univ.)

Invariants of conjugacy classes of surface braids derived from Fox n-colorings

Chair: Hao Zheng (SUN YAT-SEN Univ.)

14:50-15:10 Tea time

15:10-15:35

Youngsik Huh (Hanyang Univ.)

Heptagonal figure-8 knots

15:35-16:00

Ayumu Inoue (Tokyo Institute of Technology)

A complex volume formula via quandle shadow coloring (joint work with Yuichi Kabaya)

Chair: Hongzhu Gao (Beijing Normal Univ.)

16:10-16:35

Ayako Ido (Nara Woman's Univ.)
 An estimation of Heegaard distance by using Reeb graph
 16:35-17:00
 Fengling Li (Herbin Institute Of Tech.)
 Additivity of Heegaard genera under annulus sum
 Chair: Sangyop Lee (Chung-Ang Univ.)

Seminar Room 214

14:00-14:25
 Kanji Morimoto (Konan University)
 Characterization of composite twisted torus knots
 14:25-14:50
 Jiming Ma (Fudan Univ.)
 Hyperbolicity of genus two Hatcher-Thurston complex
 Chair: Seungsang Oh (Korea Univ.)

15:10-15:35
 Jinseok Cho (Waseda Univ.)
 The complex volumes of twist knots
 15:35-16:00
 In Dae Jong (Osaka City Univ.)
 "Gromov hyperbolicity of a variation of the Gordian complex (joint work with Kazuhiro Ichihara)"
 Chair: Ying Zhang (Soochow Univ.)

16:10-16:35 Yasutaka Nakanishi (Kobe Univ.)
 Alexander polynomials of knots which are transformed into the trefoil knot by a single crossing change
 16:35-17:00
 Hanchul Park (KAIST)
 Khovanov homology and its torsion
 Chair: Teruaki Kitano (Soka Univ.)

Seminar Room 216

14:00-14:25
 Yongju Bae (Kyungpook National Univ.)
 On the Bollobás-Riordan polynomials
 14:25-14:50
 Zhiyun Cheng (Beijing Normal Univ.)
 An invariant for knot
 Chair: Taizo Kanenobu (Osaka City Univ.)

15:10-15:35
 Toshifumi Tanaka (POSTECH)
 Knot Floer homology and Alexander modules of symmetric unions
 15:35-16:00

Zhixiong Tao (Zhejiang Univ. of Science and Technology)

2-Adjacent knot

Chair: Shin Satoh (Kobe Univ.)

16:10-16:35

Teruhisa Kadokami (Dalian Univ. of Tech.)

Lens space surgeries along certain 2-component links and Reidemeister-Turaev torsion (joint work with Yuichi Yamada)

16:35-17:00

Takuji Nakamura (Osaka Electro-Communication Univ.)

Notes on virtual knots with trivial polynomial invariants

Chair: Taehee Kim (Konkuk Univ.)

Jan. 26

8:30-9:20

Ki Hyoung Ko (KAIST)

How to tell reducible braids among rigid braids.

Chair: Boju Jiang (Peking Univ.)

9:30-10:20

Taizo Kanenobu (Osaka City Univ.)

H(2)-Gordian Distance of Knots

Chair: Gyo Taek Jin (KAIST)

10:20-10:40: Tea time

10:40-11:30

Ying Zhang (Soochow Univ.)

Geometry and topology of the $SL(2, \mathbb{C})$ character variety of the once-punctured torus group

Chair: Makoto Sakuma (Hiroshima Univ.)

Seminar Room 212

14:00-14:25

Atsushi Ishii (Univ. of Tsukuba)

Normalizations for the Yamada polynomial

14:25-14:50

Tetsuya Ito (The University of Tokyo)

Bi-invariant orderings of groups and finite type invariants

Chair: Fan Ding (Peking Univ.)

15:10-15:35

Zhiqing Yang (Dalian Univ. of Tech.)

A new knot polynomial

15:35-16:00

Yumi Tomiyama (Kobe Univ.)

Diagrammatic invariants and Miyazawa polynomials for virtual knots

Chair: Yongju Bae (Kyungpook National Univ.)

16:10-16:35

Ayaka Shimizu (Osaka City Univ.)

The warping degree of a link diagram

16:35-17:00

Seung Yeop Yang (Kyungpook National Univ.)

Skein polynomial of a link with local symmetry

Chair: Youfa Han (Liaoning Normal Univ.)

Seminar Room 214

14:00-14:25

Teruaki Kitano (Soka Univ.)

A partial order on the set of prime knots

14:25-14:50

Hwa Jeong Lee (KAIST)

Prime knots with the arc index smaller than the minimal crossing number

Chair: Naoko Kamada (Nagoya City Univ.)

15:10-15:35

Tetsuya Abe (Osaka City Univ.)

On crossing changes and band-surgeries

15:35-16:00

HyoWon Park (KAIST)

Torsions in homologies of graph braid groups

Chair: Xiaobo Liu (AMSS, Chinese Academy of Sciences)

16:10-16:35

Shinya Okazaki (Osaka City Univ.)

On the bridge genus and the braid genus for a lens space

16:35-17:00

Jifu Xiao (Dalian University of Tech.)

A generalization of the Kauffman 2 varibale poloynomial

Chair: Jin Hong Kim (KAIST)

Seminar Room 216

14:00-14:25

Boju Jiang (Peking Univ.)

A remark on fixed points of surface maps

14:25-14:50

Kanako Oshiro (Hiroshima Univ.)

Extensions of odd order dihedral quandles and an application for surface-links

Chair: Yasutaka Nakanishi (Kobe Univ.)

15:10-15:35

Sangyop Lee (Chung-Ang Univ.)

Satellite twisted torus knots

15:35-16:00

Naoyuki Monden (Osaka Univ.)

On roots of Dehn twists

Chair: Takuji Nakamura (Osaka City Univ.)

16:10-16:35

Seiichi Kamada (Hiroshima Univ.)

On symmetric quandle presentations and surface-knots

16:35-17:00

Daniel Moskovich (Kyoto Univ.)

Symmetric surgery presentations for symmetric manifolds

Chair: Ximin Liu (South China Univ. of Tech.)

Jan. 27

8:30-9:20

Makoto Sakuma (Hiroshima Univ.)

The Cannon-Thurston map, fractal tessellations and degeneration of circle chains

Chair: Shicheng Wang (Peking Univ.)

9:30-10:20

Jiajun Wang (Caltech)

On combinatorial Floer homology

Chair: Kanji Morimoto (Konan Univ.)

10:20-10:40: Tea time

10:40-11:30

Jae Choon Cha (POSTECH)

Homology and L2-signatures from amenable groups

Chair: Fengchun Lei

Seminar Room 212

14:00-14:25

Dongseok Kim (Kyonggi Univ.)

 $\mathfrak{sl}(1|1)$ Combinatorial webs and its weight systems

14:25-14:50

Fumikazu Nagasato (Meijo Univ.)

A topological aspect of the Chebyshev polynomials

Chair: Yinghua Ai (Tsinghua University)

15:10-15:35

Kengo Kishimoto (Osaka City Univ.)

A table of pseudo-prime genus two handlebody-knots with up to six crossings

15:35-16:00

Yu Bin (Tongji Univ.)

Lyapunov graphs of nonsingular Smale flows on $S^1 \times S^2$

Chair: Jiming Ma (Fudan Univ.)

Seminar Room 214

14:00-14:25

Ximin Liu (South China Institute of Tech.)

Nonsmoothable involutions on elliptic surfaces

14:25-14:50

Takahiro Kitayama (The Univ. of Tokyo)

On metabelian Reidemeister torsion

Chair: Yuichi YAMADA (Univ. of Electro-communications)

15:10-15:35

Jin Hong Kim (KAIST)

Symplectic circle actions and isolated fixed points of symplectic manifolds

15:35-16:00

Yoshiro Yaguchi (Hiroshima Univ.)

On BC -equivalence between two tuples of the standard generators of an Artin group of finite type.

Chair: Youlin Li (Sahngai Jiaotong Univ.)

16:10-16:35

Yeonhee Jang (Hiroshima univ.)

Symmetric quandle colorings for handlebody-links

16:35-17:00

Hiromasa Moriuchi (Osaka City Univ.)

An enumeration of non-prime theta-curves and handcuff graphs with up to seven crossings

Chair: Teruhisa Kadokami (Dalian Univ. of Tech.)

Seminar Room 216

14:00-14:25

Akio Kawauchi (Osaka City Univ.)

Applying spatial graph imitations

14:25-14:50

Xuezhi Zhao (Capital Normal Univ.)

Non-singular Smale flows and torsions of 3-manifolds

Chair: Youngsik Huh (Hanyang Univ.)

15:10-15:35

Naoko Kamada (Nagoya City Univ.)

Quandle of twisted links

15:35-16:00

Joon Hyun La (KAIST)

Graphs whose 3,4-graph braid groups are right-angled Artin groups

Chair: Masahide Iwakiri (Osaka City Univ.)

16:10-16:35

Yuki Okada (Kobe Univ.)

"The differences of Alexander polynomials caused by a single crossing change"

16:35-17:00

Jung Hoon Lee (KIAS)

Tunnel number one, locally unknotted theta curves are prime

Chair: Xiangjun Wang (Nankai Univ.)

Jan. 28

8:30-9:20

Yuichi YAMADA (Univ. of Electro-communications)

Every Berge's knot of lens space surgery is a divide knot.

Chair: Jae Choon Cha (POSTECH)

9:30-10:20

Takefumi Nosaka (Kyoto Univ.)

On quandle homology groups of Alexander quandles of prime order

Chair: Xuezhi Zhao (Capital Normal Univ..)

10:20-10:40: Tea time

10:40-11:30

Shicheng Wang (Peking Univ.)

Graph manifolds have virtually positive Seifert volume

Chair: Akio Kawauchi (Osaka City Univ.)