Program

MONDAY, 21 January

LECTURE HALL

09:25-09:30 Opening Remarks : Toshitake Kohno

09:30-10:20 **Ki Hyoung Ko** (KAIST)

       Graph braid groups and right angled Artin groups

10:30-11:20 **Takayuki Morifuji** (Tokyo Univ. Agri. & Tech.)

       On the signature cocycle and related invariants of 3-manifolds

11:30-12:20 **Jae Choon Cha** (POSTECH)

       Slicing iterated Bing doubles

ROOM 1

13:40-14:10 **Zhiqing Yang** (Dalian University of Technology)

       Wirtinger presentations and link diagrams

14:20-14:50 **Teruaki Kitano** (Soka University) and **Masaaki Suzuki** (Akita University)

       On the number of $SL(2; \mathbb{Z}/p\mathbb{Z})$-representations of knot groups

15:00-15:30 **Hongbin Sun** (Peking University)

       Commensurability of Surface Automorphisms

16:00-16:30 **Hyo Won Park** (KAIST)

       Injectivity of homologies of graph braid groups

16:40-17:10 **Shida Wang** (Peking University)

       Strict achirality of links up to 11-crossing

17:20-17:50 **Seiichi Kamada** (Hiroshima University)

       On bridge presentation of virtual knots

18:00-18:30 **Yoshikazu Yamaguchi** (The University of Tokyo)

       On the geometry of certain slices of character varieties of knots

ROOM 2

13:40-14:10 **Se Goo Kim** (Kyoung Hee University)

       Polynomial splittings of metabelian von Neumann rho-invariants of knots

14:20-14:50 **Fan Ding** (Peking University)

       A unique decomposition theorem for tight contact 3-manifolds

15:00-15:30 **Ki-Heon Yun** (Seoul National University)

       Fibered knot and Lefschetz fibrations of Fintushel-Stern knot surgered 4-manifold

16:00-16:30 **Jianchun Wu** (Peking University)

       The degrees of self maps of orientable torus bundles and semi-torus bundles

16:40-17:10 **Eiko Kin** (Tokyo Institute of Technology)

       An asymptotic behavior of the dilatation for a family of pseudo-Anosov braids

17:20-17:50 **Mitsuhiko Takasawa** (Tokyo Institute of Technology)

       Entropy of pseudo-Anosov braids and fiber surfaces of hyperbolic 3-manifolds

18:00-18:30 **Takuji Nakamura** (Osaka Electro Communication university)

       Delta unknotting numbers for positive knots

TUESDAY, 22 January

LECTURE HALL

09:30-10:20 **Boju Jiang** (Peking University)

Computing the Nielsen number on a graph — a survey

10:30-11:20 **Takashi Matsuoka** (Naruto Univ. of Teacher Education)

Applications of braid group representations to dynamical systems

11:30-12:20 **Andrei Pajitnov** (Université de Nantes)

Dynamics of gradient flows in the non-transversal Morse theory

ROOM 1

13:40-14:10 **Akira Yasuhara** (Tokyo Gakugei University)

Self delta-equivalence for links whose Milnor's isotopy invariants vanish

14:20-14:50 **Hao Zheng** (Sun Yat-sen University)

High order skein relations in colored HOMFLY polynomial

15:00-15:30 **Hun Kim** (Institute for Gifted Students, KAIST)

Lattice Edge Number of Figure-8 knot

16:00-16:30 **Ryo Nikkuni** (Kanazawa University)

On spatial graph diagrams with at most three crossings

16:40-17:10 **Seo Jung Park** (KAIST)

Quadrisecant approximation of hexagonal trefoil knots

17:20-17:50 **Tamas Kalman** (The University of Tokyo)

The Homfly polynomial of braids with a full twist

ROOM 2

13:40-14:10 **Xuezhi Zhao** (Capital Normal University)

Homotopy minimal periods for maps on the 3-nilmanifolds

14:20-14:50 **Zhi Lu** (Fudan University)

Topological types of 3-dimensional small covers

15:00-15:30 **Jiming Ma** (Fudan University)

Distance and the Heegaard genera of annular 3-manifolds

16:00-16:30 **Qiang Zhang** (Peking University)

Boundary slopes of immersed surfaces in Haken manifolds

16:40-17:10 **Kanji Morimoto** (Konan University)

Essential surfaces and torus knots with twists

17:20-17:50 **Toru Ikeda** (Kochi University)

Boundaries of incompressible surfaces in graph link exteriors

18:00-20:00 **Banquet**

WEDNESDAY, 23 January

LECTURE HALL

09:30-10:20 **Toshifumi Tanaka** (Osaka City Univ.)

An infinite family of exotic 4-manifolds and Rasmussen invariants of knots

10:30-11:20 **Jiangang Yao** (UC Berkeley)

On embedding all n-manifolds into a single $(n+1)$-manifold

11:30-12:20 **Yo'av Rieck** (The University of Arkansas)

On the Heegaard genus of knot exteriors

ROOM 1

13:40-14:10 **Fengchun Lei** (Dalian University of Technology)

On Maximal Collections of Essential Annuli in a Handlebody

14:20-14:50 **Sang Yop Lee** (Seoul National University)

Lens spaces and toroidal Dehn fillings

15:00-15:30 **Mingxing Zhang** (Dalian University of Technology)

Labeled graph method in handle addition

16:00-16:30 **Jung Hoon Lee** (Korea Institute of Advanced Study)

An upper bound for tunnel number of a knot using free genus

16:40-17:10 **Jun Murakami** (Waseda University)

On logarithmic knot invariant

17:20-17:35 **Takahito Kuriya** (Kyushu University)

$O(2N)$ and $Sp(N)$-version of the LMO invariant as a matrix model

17:40-17:55 **Daniel Moskovich** (RIMS)

Surgery presentations of the dihedral covering link

18:00-18:15 **Saki Umeda** (Nara Women's University)

A design for pseudo-Anosov braids using hypotrochoid curves

ROOM 2

13:40-14:10 **Sang Youl Lee** (Pusan National University)

New surface link invariants via ch-diagrams

14:20-14:50 **Tsukasa Yashiro** (Sultan Qaboos University)

On lower bounds of triple point numbers for 5-colorable 2-knots

15:00-15:30 **Akiko Shima** (Tokai University)

On charts with two crossings

16:00-16:30 **Kokoro Tanaka** (Gakushuin University)

A categorification of the one-variable Kamada-Miyazawa polynomial

16:40-17:10 **Alexander Stoimenow** (OCAMI)

Determinants of knots and Diophantine equations

17:20-17:35 **Shin Satoh** (Kobe University)

On tricolorable 2-knots of triple point number four

17:40-17:55 **Reiko Shinjo** (OCAMI)

Spatial graph diagrams realizing prescribed subdiagrams partitions

18:00-18:15 **Teruhisa Kadokami** (Dalian University of Technology)

Lens surgeries along the Whitehead link

<p style="text-align: center;">**THURSDAY, 24 January**</p>

LECTURE HALL

09:30-10:20 **In Dae Jong** (Osaka City Univ.)

On the Alexander polynomials of alternating knots of genus two

10:30-11:20 **Gyo Taek Jin** (KAIST)

Prime knots with arc index up to 11 and an upper bound of arc index for non-alternating knots

1. **Poster Session**

January 21–23 : 15:30–16:00

Arnaud Deruelle (Tokyo Institute of Technology)
Network of Seifert surgeries

Tetsuya Ito (The University of Tokyo)
Braid ordering, Nielsen-Thurston classification and geometry of knot complement

Masahide Iwakiri (OCAMI)
A G-family of quandles and cocycle invariants for handlebody-links

Yeonhee Jang (Osaka University)
Genus 2 Heegaard splittings of 3-manifolds and 3-bridge presentations of links

Yasto Kimura (The University of Tokyo)
Third rack homology class of knot quandle obtained from shadow coloured diagram

Takahiro Kitayama (The University of Tokyo)
Isometries on SU(2)-representation spaces of knot groups and twisted Alexander functions

Shojiro Nagata (InterVision Institute)
Knot related patterns in folk arts

Keiichi Sakai (The University of Tokyo)
Configuration space integral and Poisson structure on the homology of the space of framed long knots