

**The Third Pan-Pacific International Conference on
Topology and Applications**

**November 8-13, 2019
Chengdu, People's Republic of China**

**Conference Schedule
(Day-by-Day)**

November 8 Arrival and Registration

**10:00 – 17:00 Registration
Xiangyu Hotel**

18:00 – 19:00 Dinner

**19:30 Joint Meeting of International and Local Committees
Xiangyu Hotel**

November 9 Day 1

8:00 – 8:30 **Registration continued**
Xiangyu Hotel

8:30 – 9:00 **Open Ceremony**
Xiangyu Hotel

9:00 – 10:35 **Plenary Talk Session 1**

9:00 – 9:45 Chair: Sergey Antonyan	Floer cohomology and covering spaces Kaoru Ono
9:50 – 10:35 Chair: Daniel Juan Pineda	Stability patterns in algebra and topology Rita Jiménez Rolland

10:40 – 11:25 **Morning tea break**

11:30 – 12:15 **Plenary Talk Session 2**

11:30 – 12:15 Chair: Weinian Zhang	Topology and topological sequence entropy Xiangdong Ye
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12:30– 14:30 **Lunch break**

14:30 – 16:10

Parallel Session 1

Room 1: Low-dimensional Topology (1)

Chair: Weiping Li

14:30 – 15:05	Mapping classes are almost determined by their finite quotient actions Yi Liu
15:10 – 15:30	On crosscap numbers of knots Noboru Ito
15:30 – 15:50	New quantum invariants of genus 2 handlebody-2-tangles Sukuse Abe

Room 2: Algebraic Topology (1)

Chair: Daisuke Kishimoto

14:30 – 15:05	The non-triviality of the labeled open-closed TQFT associated with string topology for classifying spaces Katsuhiko Kuribayashi
15:10 – 15:35	Topology of real toric manifolds and its application Suyoung Choi
15:40 – 16:05	Uniruleness of symplectic birational geometry on orbifolds Chengyong Du

Room 3: General and Set-theoretic Topology (1)

Chair: Angel Tamariz-Mascarua

14:30 – 15:05	Usco selections and Choquet-completeness Valentin Gutev
15:05 – 15:40	On the hyperspace of non-trivial convergent sequences Salvador Garcia-Ferreira
15:45 – 16:10	Three results independent of ZFC for certain products Yukinobu Yajima

Room 4: Order, Topology and Theoretic Computer Science(1)

Chair: Qingguo Li

14:30 – 15:05	Some recent advances in non-Hausdorff topology Xiaoquan Xu
15:10 – 15:45	Quantale-valued topological spaces via closure and convergence Hongliang Lai

16:10 – 16:40

Afternoon tea break

16:40 – 18:30

Parallel Session 2

Room 1: Low-dimensional Topology (2)

Chair: Taizo Kanenobu

16:40 – 17:00	Studies of distance one surgeries on lens space $L(p,1)$ and band surgeries on torus knot $T(2,p)$ Jingling Yang
17:00 – 17:20	New deformations on spherical curves and Ostlund Conjecture Megumi Hashizume
17:30 – 17:50	Calculating the Arf invariant of a proper link from a bicolored diagram Kengo Kawamura
17:50 – 18:10	Generalized quandle cocycle invariants and shadow quandle cocycle invariants Atsushi Ishii

Room 2: Algebraic Topology (2)

Chair: Katsuhiko Kuribayashi

16:40 – 17:15	Relative phantom maps Takahiro Matsushita
17:20 – 17:45	Representation theory of internal categories and its application to comodules over Hopf algebroids Atsushi Yamaguchi
17:50 – 18:15	Self closedness numbers and self-lengths of certain monoids of self-maps Ho Won Choi

Room 3: Geometric Topology (1)

Chair: Bohui Chen

16:40 – 17:15	Simultaneous extension of equivariant maps Sergey Antonyan
17:20 – 17:55	Some geometric correspondences for homothetic navigations Ming Xu
18:00 – 18:25	Dispersionless integrable hierarchy via Kodaira-Spencer gravity Xinxing Tang

Room 4: Topology and Dynamical Systems (1)

Chair: Enhui Shi

16:40 – 17:15	Random walks on groups acting on dendrites Andrei Malyutin
17:20 – 17:45	The singularities of special developable surfaces of frame curves in the 3-Euclidean space Yanlin Li
17:50 – 18:15	Recent developments of chaos theory in topological dynamics Jian Li

19:00

Welcome reception

November 10

Day 2

8:30 – 10:10

Parallel Session 3

Room 1: Low-dimensional Topology (3)

Chair: Mario Eudave-Munoz

8:30 – 9:05	Existence of a transverse universal knot Jesus Rodriguez-Viorato
9:10 – 9:35	Torus handle additions on boundary component of genus three Luis Celso Chan-Palomo
9:40 – 10:05	The Neuwirth conjecture and (1,1)-knots Jose Frias

Room 2: Set Theory (1)

Chair: Shuguo Zhang

8:30 – 9:05	Some more applications of omega ω_1-strongly compact cardinals in General Topology Joan Bagaria
9:10 – 9:45	Set-theoretic principles which imply that the continuum is fairly large Sakaé Fuchino
9:50 – 10:25	Large cardinals as natural upper bounds on cardinal functions Toshimichi Usuba

Room 3: General and Set-theoretic Topology (2)

Chair: Mikhail Tkachenko

8:30 – 9:05	Some recent progress on the study of gaps in the lattice of topological group topologies on a group Wei He
9:10 – 9:35	The progresses of PT-groups and Dieudonné completion of paratopological groups Li-Hong Xie
9:40 – 10:05	Topological groups with a property of Dierolf and Warken Victor Hugo Yañez

Room 4: Order, Topology and Theoretic Computer Science (2)

Chair: Hui Kou

8:30 – 8:55	The monad of saturated prefilters Dexue Zhang
9:00 – 9:25	AL-spaces and algebraic L-domains Longchun Wang
9:30 – 9:55	Digital topological rough set structures and their applications Sang-Eon Han

10:10 – 10:30

Morning tea break

10:30 – 12:30

Parallel Session 4

Room 1: Low-dimensional Topology (4)

Chair: Seiichi Kamada

10:30 – 11:05	Conjugacy stability of braids and spherical Artin-Tits groups Bruno A. Cisneros de la Cruz
11:10 – 11:30	Comparison of minimal equal lengths in a once punctured torus running over its relative Teichmuller space Ying Zhang
11:30 – 11:50	On 3-submanifolds of S^3 which admit complete spanning curve systems Fengling Li

Room 2: Set Theory (2)

Chair: Sakaé Fuchino

10:30 – 11:05	Generalizations of Martin's Axiom, square, and a forcing axiom failure David Aspero
11:10 – 11:45	Reflection principles down to the continuum and an application of mixed support iteration André Ottenbreit Maschio Rodrigues
11:50 – 12:25	Basis sizes of uncountable linear orders Yinhe Peng

Room 3: General and Set-theoretic Topology (3)

Chair: Manuel Sanchis

10:30 – 11:05	Factoring continuous homomorphisms defined on subgroups of topological products Mikhail Tkachenko
11:05 – 11:40	A new class of topological groups containing all Polish groups and all minimal groups Dmitri Shakhmatov
11:45 – 12:10	A note on paratopological groups with an ω^ω-base Zhangyong Cai

Room 4: Order, Topology and Theoretic Computer Science (3)

Chair: Xiaoquan Xu

10:30 – 11:05	SI-convergence in T_0 spaces Jing Lu
11:10 – 11:45	Core-compactness of Smyth powerspace Zhenchao Lyu
11:50 – 12:25	On some categories of metric-type spaces based on extended t-conorms Alexander Šostak

12:30 – 14:30

Lunch break

14:30 – 16:10

Parallel Session 5

Room 1: Low-dimensional Topology (5)

Chair: Hiroshi Goda

14:30 – 14:50	Exchange moves and non-conjugate braid representatives of links Alexander Stoimenow
14:50 – 15:10	Hurwitz action on tuples of permutations Yoshiro Yaguchi
15:20 – 15:40	Crossing number of an alternating 3-braid knot and canonical genus of its whitehead double Sang Youl Lee
15:40 – 16:00	Quasi-positive links and electromagnetism Benjamin Bode

Room 2: Set Theory (3)

Chair: Joan Bagaria

14:30 – 15:05	Undefinability via topology Franklin D. Tall
15:10 – 15:45	On equivalence relations generated by Cauchy sequences in countable metric spaces Longyun Ding

Room 3: General and Set-theoretic Topology (4)

Chair: Alejandro Illanes

14:30 – 15:05	The inverse limit nonautonomous dynamical system Manuel Sanchis
15:10 – 15:35	On quasi-continuous dynamical systems Jiling Cao
15:40 – 16:05	The hyperspace of ω-limit sets Jorge M. Martinez-Montejano

Room 4: Topology and Dynamical Systems (2)

Chair: Hisao Kato

14:30 – 15:05	Ergodic theory of random Anosov systems mixing on fibers Zeng Lian
15:10 – 15:35	Sensitive semigroup actions on continua Suhua Wang
15:40 – 16:05	Margulis-Ruelle inequality for general manifolds Gang Liao

16:10 – 16:30

Afternoon tea break

16:30 – 18:30

Parallel Session 6

Room 1: Low-dimensional Topology (6)

Chair: Benjamin Bode

16:30 – 16:50	The knots $k(l, m, n, p)$ and $(1,1)$-knots Mario Eudave-Muñoz
16:50 – 17:10	Semi-locally Alexander polynomials of knots Takefumi Nosaka
17:20 – 17:40	On the Cheeger-Chern-Simons invariant of a 3-manifold Seokbeom Yoon
17:40 – 18:00	Twisted Alexander polynomial and Matrix-weighted zeta function Hiroshi Goda

Room 2: Set Theory (4)

Chair: Jörg Brendle

16:30 – 17:05	Preserving selection principle properties Jialiang He
17:10 – 17:45	Some constructions involving inverse limits Aleksander Błaszczyk

Room 3: General and Set-theoretic Topology (5)

Chair: Valentin Gutev

16:30 – 17:05	Topological mixing and UPE Verónica Martínez de la Vega
17:05 – 17:30	Means on continua Jimmy A. Naranjo-Murillo
17:35 – 18:00	Semi-Kelley continua Alejandro Illanes
18:05 – 18:30	On retractional skeletons on compact spaces Cenobio Yescas-Aparicio

Room 4: Order, Topology and Theoretic Computer Science (4)

Chair: Sang-Eon Han

16:30 – 16:55	Fuzzy relational morphological spaces: basic properties and topological interpretation Alexander Šostak
17:00 – 17:25	Investigation of “Flash Crash” via topological data analysis (TDA) Wonse Kim
17:30 – 17:55	Lower topology poset models of T_1 spaces Shen Chong

8:30 – 10:00

Parallel Session 7

Room 1: Low-dimensional Topology (7)

Chair: Reifeng Qiu

8:30 – 8:50	On Relation between quandle extension and group extension Yongju Bae
8:50 – 9:10	Extensions of multiple conjugation quandles Tomo Murao
9:20 – 9:40	Cocycles of G-Alexander biquandles and G-Alexander multiple conjugation biquandles <u>Shosaku Matsuzaki</u>
9:40 – 10:00	Tensor products of quandles and classification of 1-handles attaching to surface-links Seichi Kamada

Room 2: Algebraic Topology (3)

Chair: Takahiro Matsushita

8:30 – 9:05	Moduli space of Kapustin-Witten equations on a closed 4-manifold Teng Huang
9:10 – 9:35	Upper bound for monoidal topological complexity Norio Iwase
9:35 – 10:00	String^e structures and modular invariants Ruizhi Huang

Room 3: General and Set-theoretic Topology (6)

Chair: Yukinobu Yajima

8:30 – 8:55	A useful common weakening of Lindelöf and H-closed Angelo Bella
9:00 – 9:25	Lindelöfness and Cech-completeness on the hypergroup of Hartman-Mycielski Iván Sánchez
9:30 – 9:55	On some properties of PIGO and PIGT Liang-Xue Peng

Room 4: Topology and Dynamical Systems (3)

Chair: Benjamin Vejnar

8:30 – 9:05	Some results about sensitivity on linear dynamical systems Peiyong Zhu
9:10 – 9:35	On coupling lemma and stochastic properties for one-dimensional expanding maps Jianyu Chen

10:00 – 10:30

Morning tea break

10:30 – 12:30

Parallel Session 8

Room 1: Low-dimensional Topology (8)

Chair: Yongju Bae

10:30 – 10:50	Vassiliev knot invariants derived from cable Γ-polynomials Hideo Takioka
10:50 – 11:10	A multivariable polynomial invariant of virtual links and cut systems Naoko Kamada
11:20 – 11:40	Mapping class group of a Heegaard splitting <u>Yanqing Zou</u>
11:40 – 12:00	Skein modules: The braid approach Ioannis Diamantis

Room 2: Algebraic Topology (4)

Chair: Teng Huang

10:30 – 11:05	On the Borel conjecture for Alexandrov spaces Noe Barcenas
11:10 – 11:35	Moduli spaces of Higgs bundles and hyper Kähler metrics Zhenxi Huang
11:40 – 12:05	Free cyclic group actions on $(n-1)$-connected $2n$-manifolds Jianqiang Yang

Room 3: Geometric Topology (2)

Chair: Sergey Antonyan

10:30 – 11:05	Upper and lower topologies on hyperspaces Natalia Jonard-Pérez
11:10 – 11:45	Gromov-Witten invariants and virtual neighborhoods Li Sheng
11:50 – 12:15	Rational cubic fourfolds in Hassett divisors Song Yang

Room 4: Topology and Dynamical Systems (4)

Chair: Yackelin Z. Rodríguez-López

10:30 – 10:55	Minimal sets for amenable group actions on uniquely arcwise connected continua Enhui Shi
11:00 – 11:25	Densely locally minimal groups M. Shlossberg
11:30 – 11:55	Topological conjugation classes of tightly transitive subgroups of $\text{Homeo}_+(S^1)$ Hui Xu

12:30 – 14:30

Lunch break

14:30 – 16:10

Parallel Session 9

Room 1: Low-dimensional Topology (9)

Chair: Makoto Ozawa

14:30 – 15:05	A stably trivial link Akio Kawauchi
15:10 – 15:30	Classification of ribbon 2-knots of 1-fusion with up to six crossings Taizo Kanenobu
15:30 – 15:50	3-manifolds admitting locally large Heegaard splittings Ruifeng Qiu

Room 2: Algebraic Topology (5)

Chair: Bai-ling Wang

14:30 – 15:05	Higher homotopy associativity in the Harris decomposition of Lie groups Daisuke Kishimoto
15:10 – 15:35	On nil groups for the quaternion group Daniel Juan Pineda
15:40 – 16:05	On the cohomology of Coxeter groups and related groups Toshiyuki Akita

Room 3: Geometric Topology (3)

Chair: Bin Zhang

14:30 – 15:05	D-branes, K-homology and index theory Bai-ling Wang
15:10 – 15:45	Characterizing infinite-dimensional manifolds by general position properties Katsuhisa Koshino

Room 4: Topology and Dynamical Systems (5)

Chair: Peiyong Zhu

14:30 – 14:55	The complexity of conjugacy equivalence relation of interval dynamical systems Benjamin Vejnar
15:00 – 15:25	Algebraic entropy on topologically quasi-Hamiltonian groups Wenfei Xi

16:00 – 16:30

Afternoon tea break

16:30 – 18:00

Parallel Session 10

Room 1: Low-dimensional Topology (10)

Chair: Masakazu Teragaito

16:30 – 17:05	On smooth fake projective planes Jongil Park
17:10 – 17:30	The maximum and minimum genus of a multibranch surface Makoto Ozawa
17:30 – 17:50	Dirichlet domains for one-cone torus bundles Hirotaka Akiyoshi

Room 2: Algebraic Topology (6)

Chair: Daniel Juan Pineda

16:30 – 17:05	On Fano and weak Fano regular Hessenberg varieties Haozhi Zeng
17:10 – 17:35	Converse of Smith theory Min Yan
17:35 – 18:00	Some applications of topological vertex algorithm Xiaobin Li

Room 3: Geometric Topology (4)

Chair: Li Sheng

16:30 – 17:05	A Kähler structure of the $PU(2, 1)$ configuration space of four points in S^3 Li-Jie Sun
17:10 – 17:35	Dolbeault cohomologies of blowing up complex manifolds Xiangdong Yang
17:35 – 18:00	Dual Orlicz-Brunn-Minkowski theory Baocheng Zhu

Room 4: Order, Topology and Theoretic Computer Science (5)

Chair: Alexander Šostak

14:30 – 15:05	Completeness and injectivity Soichiro Fujii
15:10 – 15:45	Concept lattices via quantaloid-enriched categories Lili Shen

18:30

Conference dinner

8:30 – 10:00

Parallel Session 11

Room 1: Low-dimensional Topology (11)

Chair: Hirotaka Akiyoshi

8:30 – 8:50	Rigidity of matrix group actions on CAT(0) spaces with possible parabolic isometries Shengkui Ye
8:50 – 9:10	Counting conjugacy classes of groups with contracting elements Wenyuan Yang
9:20 – 9:40	Dehn surgeries along twist knots and non-trivial L-functions Jun Ueki
9:40 – 10:00	Generalized torsion and Dehn filling Masakazu Teragaito

Room 2: Set Theory (5)

Chair: Longyun Ding

8:30 – 8:55	Some game-theoretic characterizations for rapid filter on omega Zuoheng Li
9:00 – 9:25	Several cardinal invariants associated to ideal γ-covers Jaroslav Šupina
9:30 – 9:55	Absolutely strongly star-Hurewicz property with respect to an ideal Sumit Singh

Room 3: General and Set-theoretic Topology (7)

Chair: Salvador Garcia-Ferreira

8:30 – 8:55	Uniform topology on countable subsets Angel Tamariz-Mascarua
8:55 – 9:20	On the diagonals of topological spaces Lei Mou
9:20 – 9:45	Topological properties of function space with hypo-graph topology Hanbian Yang
9:40 – 10:05	On countably selective spaces Rongxin Shen

Room 4: Topology and Dynamical Systems (6)

Chair: Andrei Malyutin

8:30 – 8:55	Topological entropy and indecomposability of G-like continua Hisao Kato
9:00 – 9:25	On topological properties of the Ellis semigroup Yackelin Z. Rodríguez-López

10:10 – 10:30

Morning tea break

10:30 – 12:30

Parallel Session 12

Room 1: Geometric Topology (5)

Chair: Natalia Jonard-Pérez

10:30 – 10:55	Isoperimetric inequalities for (p,q)-mixed geominimal surface and (p,q)-mixed affine surface area Xiao Li
11:00 – 11:25	The mixed Pólya-Szegő principle and its applications Niufa Fang

Room 3: General and Set-theoretic Topology (8)

Chair: Jiling Cao

10:30 – 10:55	Point-regular covers and sequence-covering compact mappings Shou Lin
11:00 – 11:25	A study on D-spaces and the metrization of compact spaces with property $(\sigma-A)$ Huan Wang
11:30 – 11:55	Epi-almost normality Ibtesam Alshammari
12:00 – 12:25	Some characterizations of Mildly I--Hurewicz covering property Manoj Bhardwaj

12:30 – 14:30

Lunch break

14:30 – 16:15

Plenary Talk Session 3

14:30 – 15:15 Chair: Shuguo Zhang	Cardinal invariants and forcing theory Jörg Brendle
15:20 – 16:05 Chair: Dexue Zhang	Enriched Priestley spaces Dirk Hofmann

16:10 – 16:30

Afternoon tea break

16:30 – 16:05

Plenary Talk Session 4

16:30 – 17:15 Chair: Sang You Lee	Embedding the symmetries of surfaces and graphs to those of 3-sphere Shicheng Wang
17:20 – 18:05 Chair: Salvador Garcia-Ferreira	Connectedness properties of the Higson corona of the half line Takamitsu Yamauchi

18:10 – 18:30

Closing ceremony

November 13

Day 5

Free activities, excursions/sight-seeing

(Expression of interests for group tours of sight-seeing)