Workshop
Topology and Computer 2017

Date: October 20 – 22, 2017
Venue: Osaka University, Toyonaka Campus,
School & Graduate School of Engineering Science, International building, Seminar room
Address: 1-1 Machikaneyama-cho, Toyonaka, Osaka, Japan
Web: http://www.math.akita-u.ac.jp/tc2017/index-e.html

Program

October 20

13:30 – 14:00 Yusuke Inagaki (Osaka University)
    On Fuchsian locus of $\mathrm{PSL}(n, \mathbb{R})$-Hitchin component for a pair of pants

14:15 – 14:45 Jimenez Pascual, Adrian (The University of Tokyo)
    On adequacy and the crossing number of satellite knots

15:00 – 15:30 Ken'ichi Yoshida (Kyoto University)
    Parametrization for intersecting 3-punctured spheres in hyperbolic 3-manifolds

15:50 – 16:20 Hidetoshi Masai (Tohoku University)
    Topological entropy of random walks on mapping class groups

16:40 – 17:20 Hiroki Sumi (Kyoto University)
    Finding roots of any polynomial by random relaxed Newton's methods

October 21

9:30 – 10:00 Yasuhiro Hara (Osaka University)
    Homology groups of neighborhood complexes of graphs

10:15 – 10:45 Hirotaka Akiyoshi (Osaka City University)
    Experiments on Ford and Dirichlet domains for 3-dimensional cone hyperbolic manifolds

11:00 – 11:30 Kento Nakamura (Meiji University)
    Polyhedra with spherical faces and quasi-Fuchsian fractals

11:50 – 12:30 Jonathan Spreer   Freie Universität Berlin
  Telling 3-manifolds apart: new algorithms to compute Turaev-Viro invariants

14:30 – 14:45 Eri Kamikawa (Meiji University)
  Towards an integrated knot diagram editor on smartphone

14:45 – 15:00 Takeki Sudo (Meiji University)
  Cubical Ripser - A calculator of the persistent homology of the cubical complex

15:20 – 16:00 Tomohiro Tachi (The University of Tokyo)
  Configuration space of rigidly foldable origami

16:20 – 16:50 Tsuyoshi Kobayashi (Nara Women's University)
  Some geometric structures that appear in origami

17:10 – 17:50 Tadayuki Watanabe (Shimane University)
  On the 4-dimensional smooth Smale conjecture

October 22

9:30 – 10:00 Han Yoshida (National Institute of Technology, Gunma College)
  Volume and commensurability of non-arithmetic hyperbolic 3-orbifolds

10:20 – 11:00 Jonathan Spreer   Freie Universität Berlin
  simpcomp – Computational topology in GAP

11:20 – 11:50 Ryosuke Yamazaki (Gakushuin Boys' Senior High School)
  The realization problem for Jørgensen numbers   joint work with Yasushi Yamashita

12:10 – 12:50 Tatsuyoshi Hamada (Nihon University)
  An introduction of dynamic mathematical software, GeoGebra

Organizers: Yasuharu Nakae (Akita University), Tetsuya Ito (Osaka University), Kazuhiro Ichihara (Nihon University)