Braids, Configuration Spaces, and Quantum Topology

September 7 – 10, 2015 Lecture Hall,

Graduate School of Mathematical Sciences, the University of Tokyo http://faculty.ms.u-tokyo.ac.jp/~topology/BCQ2015.html

Program

September 7 (Mon)

10:00–11:00 Seiichi Kamada (Osaka City University) Generalizing braids and links in low dimensions

11:15–12:15 Jun Murakami (Department of Mathematics, Faculty of Science and Engineering, Waseda University) Logarithmic invariant of knots and its applications

14:00–14:30 Tadayuki Watanabe (Department of Mathematics, Shimane University) Finite type invariants of nullhomologous knots in 3-manifolds by counting graphs

14:35–15:05 Tetsuya Ito (RIMS, Kyoto University) On a relation between the self-linking number and the braid index of closed braids in open books

15:20–16:20 Thang Le (Georgia Institute of Technology) On the Chebyshev-Frobenius homomorphism for quantum Teichmuller spaces and skein modules

16:35–17:35 Tomotada Ohtsuki (RIMS, Kyoto University) On the asymptotic expansion of the Kashaev invariant of some hyperbolic knots

September 8 (Tue)

10:00–11:00 Kyoji Saito (Kavli IPMU) Dual Artin Monoid (joint work with T. Ishibe)

11:15–12:15 Hiroaki Terao (Hokkaido University) Weyl groups and their parabolic subgroups —In the hyperplane arrangement setup—

14:00–14:30 Takahiro Kitayama (Tokyo Institute of Technology) Representation varieties detect essential surfaces 14:35–15:05 Hisashi Kasuya (Tokyo Institute of Technology) Extensions of Nomizu's Theorem

15:20–16:20 Rei Inoue (Chiba University) Cluster algebra and knot invariants

16:35–17:35 Kazuo Habiro (RIMS, Kyoto University) Traces of categorified quantum groups

September 9 (Wed)

10:00–11:00 Christian Kassel (CNRS and Université de Strasbourg) On the zeta function of the Hilbert scheme of n points in a torus

11:15–12:15 Alexander P. Veselov (Loughborough University) Logarithmic Frobenius structures and theory of hyperplane arrangements

14:00–15:00 Mario Salvetti (Department of Mathematics, University of Pisa) Local cohomology of Artin groups and applications

15:15–16:15 Ivan Marin (Université d'Amiens) Topological applications of the BMR conjectures

16:30–17:30 Toshitake Kohno (The University of Tokyo) Holonomy of braids and its 2-category extension

September 10 (Thu)

9:30–10:30 Alexander Voronov (University of Minnesota) Dijkgraaf-Witten theory using cohomology with coefficients in Picard groupoids

10:45–11:45 Dai Tamaki (Department of Mathematics, Shinshu University) Discrete Morse theory and classifying spaces

12:00–13:00 Kimihiko Motegi (Nihon University) Genera of L-space knots

Scientific Committee : Toshitake Kohno, Keiichi Sakai, Takuya Sakasai, Toshie Takata

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