Invariants of 3-manifolds related to the Casson invariant

Dates: 25-27, January, 2017
Venue: Room 111, Research Institute for Mathematical Sciences, Kyoto University
Organizer: Tatsuro Shimizu (RIMS, Kyoto University)

Jan. 25 (Wed.)
13:00-14:00 Atsushi Mochizuki (RIMS, Kyoto University)
On the Casson-Walker invariant and a quantum representation of the mapping class group through the LMO invariant for genus one open books
14:20-15:20 Shunsuke Tsuji (Graduate School of Mathematical Sciences, The University of Tokyo)
Construction of an invariant for integral homology spheres via Kauffman bracket skein algebras and its application
15:40-16:40 Shigeyuki Morita (Emeritus, The University of Tokyo)
Casson invariant and structure of the mapping class group

Jan. 26 (Thu.)
9:40-10:40 Delphine Moussard (RIMS, Kyoto University)
Finite type invariants of rational homology 3-spheres and their knots
11:00-12:00 Nobuhiro Nakamura (Department of Mathematics, Osaka Medical College)
Recent development of Seiberg-Witten Floer theory
13:40-14:40 Kazuhiro Ichihara (College of Humanities and Sciences, Nihon University)
Generalizations of the Casson invariant and their applications to the cosmetic surgery conjecture
15:10-16:10 Teruaki Kitano (Department of Information Systems Science, Soka University)
A polynomial invariant of a homology 3-sphere defined by Reidemeister torsion

Jan. 27 (Fri.)
9:40-10:40 Hiraku Nakajima (RIMS, Kyoto University)
Coulomb branches of 3d gauge theories
11:00-12:00 Tadayuki Watanabe (Department of Mathematics, Shimane University)
Garoufalidis-Levine’s finite type invariants for $\mathbb{Z}\pi$-homology equivalences of 3-manifolds