

# Four Dimensional Topology

November 15 – November 17, 2010  
Hiroshima University

## Program

### November 15 (Mon)

14:00–14:40 Takao Matumoto (Hiroshima University)

On the unknotting conjecture in dimension four VI

14:50–15:30 Toshifumi Tanaka (Gifu University)

On the Jones polynomial of ribbon knots

16:00–16:40 Refik İnanç Baykur (Brandeis University)

Broken Lefschetz fibrations and pencils

16:50–17:30 Susumu Hirose (Saga University)

On diffeomorphisms over non-orientable surfaces standardly embedded in the 4-sphere and the level-2 mapping class group

17:40–18:20 Nobuhiro Nakamura (University of Tokyo)

Seiberg-Witten theory and intersection forms with local coefficients

### November 16 (Tue)

09:00–09:50 Daniel Ruberman (Brandeis University)

Periodic-end Dirac operators and Seiberg-Witten theory

10:00–10:40 Refik İnanç Baykur (Brandeis University)

Round handles, logarithmic transforms, and smooth four-manifolds

11:00–11:40 Osamu Saeki (Kyushu University)

Elimination of definite fold and broken Lefschetz fibrations

11:50–12:30 Naoyuki Monden (Osaka University)

Lefschetz fibrations over a torus admitting a section of square 0

14:00–14:40 Kouichi Yasui (Kyoto University)

Cork twisting exotic Stein 4-manifolds

14:50–15:30 Takefumi Nosaka (RIMS, Kyoto University)

4-fold symmetric quandle invariants of 3-manifolds (joint work with Eri Hatakenaka)

16:00–16:40 Inasa Nakamura (RIMS, Kyoto University)

Quandle cocycle invariant of a certain  $T^2$ -link

16:50–17:30 Yoshiro Yaguchi (Hiroshima University)

Hurwitz equivalence in braid systems and its applications to surface braids

17:40–18:20 Kentaro Saji (Gifu university)

Recognition criteria for singularities of fronts and their applications

**November 17 (Wed)**

09:00–09:40 Hirofumi Sasahira (Nagoya university)

Instanton Floer homology for lens spaces

09:50–10:30 Motoo Tange (RIMS, Kyoto University)

Knot surgery on  $S^2 \times S^2$

10:50–11:30 Shohei Yamada (Osaka University)

On Cappell-Shaneson homotopy spheres

11:40–12:20 Akio Kawauchi (Osaka City University)

Immersed link cobordism and multi-variable Alexander polynomial

Organizers:

Seiichi Kamada and Takao Matumoto (Hiroshima University)

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