# Intelligence of Low Dimensional Topology and Extended KOOK Seminar

August 29 - September 1, 2007

Place: Osaka City University Faculty of Law Bldg., 740 (Sugimoto Campus)

Access: http://www.osaka-cu.ac.jp/e information/access.html

Campus map: http://www.osaka-cu.ac.jp/e information/campusmap.html

### Program

## August 29 (Wed.)

10:00-10:45 Katsuhisa Mimachi (Tokyo Institute of Technology)

The Jones polynomial in terms of the intersection number of twisted (loaded) cycles associated with a Selberg type integral

11:00-11:45 Kokoro Tanaka (Gakushuin University)

Studies on surface-knots using quandles and quandle homology theory

14:00-14:45 Michihisa Wakui (Kansai University)

On the Turaev-Viro-Ocneanu invariant of 3-manifolds derived from generalized  $E_6$  -subfactors (jointly with Nobuya Sato)

15:00-15:45 Atsushi Ishii (Kyoto University)

Moves and invariants for knotted handlebodies

16:00-16:45 Danielle O'Donnol (UCLA)

Intrinsically *n*-linked complete graphs

17:00-17:45 Donghi Lee (Pusan National University)

On several problems about automorphisms of the free group of rank two

#### August 30 (Thu.)

10:00-10:45 Yoshihiko Mitsumatsu (Chuo University)

2-dimensional foliations and compact leaves on 4-manifolds —Can a  $T^2$ -knot be realized as a compact leaf of a foliation?—

11:00-11:45 Danny Calegari (California Institute of Technology)

Positivity of universal pairings of 3-manifolds, and the topological Cauchy-Schwarz inequality

14:00-14:45 Sang Youl Lee (Pusan National University)

Formulas for the Casson invariant of integral homology 3-spheres

15:00-15:45 Tetsuhiro Moriyama (University of Tokyo)

On the vanishing of the Rohlin invariant

16:00-16:45 Tadayuki Watanabe (Kyoto University)

The simplest Kontsevich class for non-linear bundles and Haefliger-Takase's invariant

17:00-17:45 Kazuhiro Ichihara (Nara University of Education)

On the maximal number of exceptional surgeries

(Party 18:00-20:00 "Wisteria" in Media Center on the 1st floor)

## August 31 (Fri.)

10:00-10:45 Ryo Nikkuni (Kanazawa University)

Homotopy on spatial graphs and generalized Sato-Levine invariants

11:00-11:45 Yo'av Rieck (University of Arkansas)

On Steiner trees in the hyperbolic plane

14:00-14:45 Yoshikazu Yamaguchi (University of Tokyo)

The non-acyclic Reidemeister torsion and the twisted Alexander invariant for knots

15:00-15:45 Ken Kanno (Waseda University)

On braid presentation of spatial graphs (jointly with Kouki Taniyama)

16:00-16:45 Toshifumi Tanaka (Osaka City University)

Maximal Thurston-Bennequin numbers and Rasmussen invariants of doubled knots

#### September 1 (Sat.)

10:00-10:45 Kouki Taniyama (Waseda University)

Multiplicity of a space over another space

11:00-11:45 Chan-Young Park (Kyungpook National University)

Periodic virtual links and the binary bracket polynomials

Contact: Taizo Kanenobu (kanenobu @ sci.osaka-cu.ac.jp)

In advance of this conference, we have Kyungpook National University BK21, Pusan National University BK21,Osaka City University 21COE Joint Graduate Student Workshop on August 27 and 28 at Osaka City University Media Center (1F). Fields of mathematics for the conference do not be restricted to Knots and Low-dimensional Topology.