

# Toric Topology 2011 in Osaka

Dates: November 28 (Mon) – November 30 (Wed), 2011

Venue: Lecture Room 832 (Mon & Wed) & 833 (Tue),  
General Education Building, Osaka City University

Organizer: Y. Fukukawa, H. Ishida, S. Kuroki, M. Masuda (Osaka City Univ.)

This meeting is an activity of the bilateral program between Japan and Russia:  
“Toric topology with applications in combinatorics”

## Program

November 28 (Mon) Lecture Room 832

9 : 30 ~ 10 : 00 Haibao Duan (Chinese Academy of Science)  
Schubert calculus and Cohomology of Lie groups

10 : 20 ~ 10 : 50 Shizuo Kaji (Yamaguchi Univ.)  
Constructing a Schubert-like basis for GKM G-manifolds

11 : 10 ~ 11 : 40 Yukiko Fukukawa (Osaka City Univ.)  
The cohomology ring of the GKM graph of a flag manifold

12 : 00 ~ 12 : 30 Hiroaki Ishida (Osaka City Univ. Adv. Math. Inst.)  
Complex torus manifolds

2 : 30 ~ 3 : 00 Anton Ayzenerberg (Moscow State Univ.)  
Nerve-complexes of nonsimple polytopes

3 : 20 ~ 3 : 50 Ivan Limonchenko (Moscow State Univ.)  
Bigraded Betti numbers of some simple polytopes

4 : 10 ~ 4 : 40 Akihiro Higashitani (Osaka Univ.)  
Ehrhart polynomials of multi-polygons

5 : 00 ~ 5 : 30 Seonjeong Park (KAIST)  
Projective bundles over 4-dimensional toric manifolds

5 : 50 ~ 6 : 20 Suyoung Choi (Ajou Univ.)  
Invariance of Pontrjagin classes of torus manifolds

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November 29 (Tue) Lecture Room 833

9 : 10 ~ 9 : 40    Takahiko Yoshida (Tokyo Denki Univ.)  
Equivariant local index

10 : 00 ~ 10 : 30    Yuri Ustinovsky (Moscow State Univ.)  
Characteristic numbers of quasitoric manifolds from the combinatorial  
point of view

10 : 50 ~ 11 : 20    Anna Abczynski (Hausdorff Inst.)  
On the polarisation of manifolds

11 : 40 ~ 12 : 10    Mayumi Nakayama (Tokyo Metropolitan Univ.)  
NilBott Tower of aspherical manifolds and Torus actions

12 : 30 ~ 1 : 00    Shintaro Kuroki (Osaka City Univ. Adv. Math. Inst.)  
Infrasolv real moment-angle manifolds

3 : 00 ~ 3 : 30    Hiraku Abe (Tokyo Metropolitan Univ.)  
On the rational  $T$ -equivariant cohomology of the weighted Grassmannians

3 : 50 ~ 4 : 20    Tomoo Matsumura (KAIST)  
Moment-angle complex and integral cohomology of toric orbifolds

4 : 40 ~ 5 : 10    Li Yu (Nanjing Univ. & Osaka City Univ.)  
On transition functions of topological toric manifolds

5 : 30 ~ 6 : 00    Ivan Arzhantsev (Moscow State Univ.)  
The automorphism group of a variety with torus action of complexity  
one

6 : 30 ~ Party (Restaurant on the 1st floor in the building of Media Center)

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November 30 (Wed) Lecture Room 832

9 : 10 ~ 9 : 40    Nickolai Erokhovets (Moscow State Univ.)  
Toric topology of polytopes with few facets

10 : 00 ~ 10 : 30    Wei Wang (Fudan Univ.)  
On the topological decomposition of non-singular hypersurfaces in pro-  
jective toric manifolds

10 : 50 ~ 11 : 20    Soumen Sarkar (Indian Statistical Inst.)  
A class of torus manifolds with nonconvex orbit space

11 : 40 ~ 12 : 10    Jérôme Tambour (KAIST)  
Geometry of moment-angle complexes

12 : 30 ~ 1 : 00    Yaroslav Bazaikin (Sobolev Math. Inst.)  
Riemannian metrics with positive Ricci curvature on moment-angle  
manifolds