International seminar for young researchers "Algebraic, combinatorial and toric topology"

December 17 - 18, 2020 (online)

Steklov Mathematical Institute of Russian Academy of Sciences

SCHEDULE

(The schedule is written in Moscow time (GMT+3))

Thursday, December 17

Morning session

10:00-10:40 Hiroaki Ishida (Kagoshima University) Holomorphic foliations and transversal real sub manifolds in Kahler manifolds

10:50-11:30 Tatsuya Horiguchi (Osaka City University) Topics on Hessenberg varieties

- **11:50-12:30** Semyon Abramyan (Higher School of Economics) On homology of the MSU spectrum
- 12:40-13:20 Zixi Wang (Fudan University) Distinguishing 4-dimensional geometries via profinite completions

13:35-14:15 Denis Gorodkov A combinatorial formula for the first Pontryagin class in terms of combinatorial curvature redistribution

Evening session

- **16:05-16:45** Igor Spiridonov (Higher School of Economics) On the structure of the top homology group of the Johnson kernel
- **17:00-17:40** Guy Boyde (University of Southampton) A K-theory criterion for p-hyperbolicity
- **17:50-18:30** Holly Paveling (University of Southampton) *H-maps of p-regular Lie groups*
- **18:50-19:30** Simon Rea (University of Southampton) Homotopy types of gauge groups of PU(p)-bundles over spheres

19:40-20:20 Steven Amelotte (University of Rochester) The minimal Hirsch-Brown model for moment-angle complexes

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Friday, December 18

Morning session

10:00-10:40 Jongback Song (Korea Institute for Advanced Study) *Toric varieties associated with partitioned weight polytopes*

10:50-11:30 Jingfang Lian (Fudan University) The alpha invariant of twisted Milnor hypersurfaces

11:50-12:30 Lisu Wu (Fudan University) The integral homology of Coxeter cellular complexes

12:40-13:20 Mikhail Gorsky (Hausdorff Research Institute for Mathematics) *Braid varieties, torus actions and stratifications*

13:35-14:15 George Chernykh (Moscow State University) SU-linear operations in complex cobordism and c_1 -spherical bordism theory

Evening session

- **17:00-17:40** George Simmons (University of Southampton) One-relator loop homology algebras of moment-angle complexes
- 17:50-18:30 Matthew Staniforth (University of Southampton) Duality in Toric Topology

18:50-19:30 Ivan Limonchenko (University of Toronto) New parametric families of graph-associahedra arising in toric topology

19:40-20:20 Roman Krutowski (University of California, Los Angeles) Basic de Rham cohomology of manifolds with maximal torus action