Quantum Topology

July 13 - 18, 2015

Program

Monday, July 13

9:15 -9:55 Registration
9:55 Opening
10:00 - 10:50 Michael Farber, Topology of large random spaces
Coffe break
11:20 - 12:10 Jozef Przytycki, Homology of Yang-Baxter operators and search for
(co)cycle invariants of knots
Lunch
14:00 - 14:50 Anton Alekseev, Moduli spaces of flat connections and free Lie algebras
15:00 - 15:50 Tahl Nowik, Complexity and invariants of knot diagrams, curves, and
surfaces
Coffee break
16:20 - 17:10 Christoph Schweigert, TV theories with defects and representation theory
17:30 Welcome party

Tuesday, July 14

10:00 - 10:50 Gregor Masbaum, On modular TQFT-representations of mapping class groups
Coffe break
11:20 - 12:10 Sergei Lando, Matroids, delta-matroids, and knot invariants
Lunch
14:00 - 14:50 Nathan Geer, Re-normalized TQFTs
15:00 - 15:50 Alexis Virelizier, 3-dimensional HQFTs
Coffee break
16:20 - 17:10 Andrei Malyutin, On the number of non-hyperbolic knots

Wednesday, July 15

10:00 - 10:50 Iskander Taimanov, On a high-dimensional generalization of Seifert fibrations
Coffe break
11:20 - 12:10 Adam Sikora, On fundamental properties of skein algebras of surfaces Lunch
14:00 - 14:50 Paul Kirk, A Lagrangian-Floer theory for traceless SU(2) character varieties of tangles
15:00 - 15:50 Sergey Natanzon, Symmetric solutions of the dispersionless 2D Toda hierarchy, Hurwitz numbers and conformal dynamics
Coffee break

16:20 - 17:10 Alexander Mednykh, Branched coverings and harmonic automorphisms of graphs

17:30- 20:00 Boat trip from the embankment near Euler institute

<u>Thursday, July 16</u>

10:00 Excursion to Peterhoff

<u>Friday, July 17</u>

10:00 - 10:50 Alexander Gaifullin, The Bellows conjecture in odd-dimensional Lobachevsky spaces

Coffe break

11:20 - 12:10 Andrei Vesnin, A census of tetrahedral hyperbolic manifolds and links Lunch

14:00 - 14:50 Ivan Dynnikov, Convex surfaces and rectangular diagrams

15:00 - 15:50 Evgeny Fominykh, On Matveev's complexity of classical and virtual 3manifolds

Coffee break

16:20 - 17:10 Andrey Morozov, Simplified Khovanov-Rozansky calculus

19:00 Conference dinner at Tchaikovsky restaurant (Fontanka emb, 6)

<u>Saturday, July 18</u>

10:00 - 10:50 Athanase Papadopoulos, **The arc metric on Teichmuller space** Coffe break

11:20 - 12:10 Vladimir Vershinin, Brunnian Braids and Lie Algebras Lunch

14:00 - 14:50 Vassily Manturov, Picture-valued invariants, groups G_n^k , and applications of virtual knot theory to classical knot theory

15:00 - 15:50 Alexey Sleptsov, Calculation of colored HOMFLY polynomials Closing