

**Monday, 13 of May**

**Biopharmaceutical Cluster, Aud. 106**

<b>9:00-9:45</b>	<b>Stefano Boccaletti</b>	<b>Explosive synchronization and Bellerophon states in networked phase oscillators</b>			
<b>9:50-10:35</b>	<b>Romualdo Pastor-Satorras</b>	<b>Effects of Social Influence on Flocking Dynamics</b>			
<b>10:35-11:00</b>	<b>Coffee break</b>				
	<b>Graph embeddings, community detection</b>		<b>Enumeration, eigenvalues</b>		
	Phystech.Arctic, 4th floor		Biopharmaceutical Cluster, Aud. 106		
11:00- 11:20	De la Fuente Alfredo	Structural Node Embeddings in Graphs Using Anonymous Walks	11:00- 11:20	Gaichenkov Mikhail	Notes on permutation graph and asymptotic expansions in the CLT
11:25-11:45	Van der Hoorn Wilhelmus Lucas Franciscus	Ollivier Curvature in Random Geometric Graphs on Riemannian Manifolds	11:25-11:45	Taletskii Dmitri	On trees with a given number of leaves and the maximum number of independent sets
11:50:12:10	Liudmila Prokhorenkova	Community detection through information diffusion	11:50:12:10	Del Vecchio Renata Raposo	Graphs with few distinct Siedel eigenvalues
12:15-12:35	Legorrec Luce	Doubly-stochastic scaling of adjacency matrices for community detection	12:15-12:35		
<b>12:40-14:10</b>	<b>Lunch break</b>				
<b>Biopharmaceutical Cluster, Aud. 106</b>					
<b>14:10-14:55</b>	<b>Colin Desmond Cooper</b>	<b>Switch transformations and a triangle-creation process in regular graphs</b>			
<b>15:00-15:45</b>	<b>Jose Fernando Mendes</b>	<b>Structural Properties of Multiplex Networks</b>			
<b>15:45-16:10</b>	<b>Coffee break</b>				
	<b>Networks, models and algorithms</b>		<b>Structural graph theory</b>		
	Phystech.Arctic, 4th floor		Biopharmaceutical Cluster, Aud. 106		
16:10-16:30	Yudina Maria	Mixed random sampling of frames method for counting number of motifs	16:10-16:30	Vlasova Nadezhda	On contractible 5-vertex subgraphs of a 3-connected graph
16:35-16:55	Malyskin Yury	Addition of choice to preferential attachment models	16:35-16:55	Shabanov Dmitry	On the chromatic number of sparse random graphs
17:00-17:20	Yudin Evgeniy	Growing network: Models following nonlinear preferential attachment rule	17:00-17:20	Rishikant Rajdeepak	Embedding perfectly balanced 2-caterpillars into its optimal hypercube
17:25-17:45	Goubko Mikhail	Optimal connecting networks: lower bounds and heuristics for trees with given vertex degree sequence	17:25-17:45	Karpov Dmitri	An upper bound on the chromatic number of a 2-planar graph
<b>18:00</b>	<b>Welcome party</b>				

**Tuesday, 14 of May**

**Biopharmaceutical Cluster, Aud. 106**

9:00-9:45	Michael Krivelevich	<b>Complete minors in graphs without sparse cuts</b>			
9:50-10:35	Benjamin Sudakov	<b>Covering random graphs by monochromatic trees and Helly-type results for hypergraphs</b>			
10:35-11:00	<i>Coffee break</i>				
	<b>Network applications</b>			<b>Colorings, zero-one laws</b>	
	Phystech.Arctic, 4th floor			Biopharmaceutical Cluster, Aud. 106	
11:00- 11:20	Haque Md Tabish	An integrated approach for railway rolling stock and crew scheduling problem	11:00- 11:20	Cherkashin Danila	Regular behaviour of the maximal hypergraph chromatic number
11:25-11:45	Mulas Raffaella	Hypergraph Laplace Operators for Chemical Reaction Networks	11:25-11:45	Gordeev Alexey	Proof of the List Coloring Conjecture for line perfect graphs
11:50:12:10	Ponomarev Ilya	Mathematical modeling of blood ow centralization in branched vascular networks	11:50:12:10	Podder Moumanti	Zero-one laws for existential first order sentences of bounded quantifier depth
12:15-12:35	Prikhodko Ivan	Renyi entropy as a critical parameter of receptor clustering on T-lymphocytes surface	12:15-12:35	Rakita Vsevolod	Weakly Distinguishing Graph Polynomials on Addable Properties
12:40-14:10	<i>Lunch break</i>				
<b>Biopharmaceutical Cluster, Aud. 106</b>					
14:10-14:55	Alexander Kostochka	<b>Extremal problems on Berge cycles in hypergraphs</b>			
15:00-15:45	Dhruv Mubayi	<b>Polynomial to Exponential transition in Ramsey theory</b>			
15:45-16:10	<i>Coffee break</i>				
	<b>Networks, models and algorithms</b>			<b>Hungarian style combinatorics</b>	
	Phystech.Arctic, 4th floor			Biopharmaceutical Cluster, Aud. 106	
16:10-16:30	Philippe Lalanda	Towards pervasive platforms for Machine Learning applications	16:10-16:30	Nagy Zoltan Lorant	The Turán number of blow-ups of trees
16:35-16:55	Semenov Alexander	A Scalable Distributed Algorithm for the Minimum Spanning Tree Problem	16:35-16:55	Korandi Daniel	Improved Ramsey-type results in comparability graphs
17:00-17:20	Iyer Tejas	Dynamical Models for Random Simplicial Complexes	17:00-17:20	Knierim Charlotte	Improved bounds on the multicolor Ramsey numbers of paths and even cycles
17:25-17:45	Lee Kang-Ju	Simplicial networks and effective resistance	17:25-17:45		
18:00-20:00	<b>Industrial session</b>				
18:00-18-40	Drutsa Alexey	Yandex, Pricing in Repeated Posted-Price Auctions			
18:50-19-30	Mazurenko Ivan	Huawei, On fundamental mathematical problems of Deep learning			
19:30-20-00	Discussion				

**Wednesday, 15 of May**

Biopharmaceutical Cluster, Aud. 106

<b>9:00-9:45</b>	<b>Remco van der Hofstad</b>	<b>Critical percolation on scale-free random graphs</b>
<b>9:50-10:35</b>	<b>Armen Asratian</b>	<b>Local-global phenomena in Hamiltonian graph theory</b>
<b>10:35-11:00</b>	<i>Coffee break</i>	
<b>11:00-11:45</b>	<b>Reinhard Max Wilhelm Diestel</b>	<b>Tangles in the empirical sciences: clustering features, not points</b>
<b>11:50-12:35</b>	<b>Joel Spencer</b>	<b>Four Discrepancies</b>
<b>12:40-14:10</b>	<i>Lunch break</i>	
<b>Excursion</b>		

<b>Thursday, 16 of May</b>					
<b>Biopharmaceutical Cluster, Aud. 106</b>					
<b>9:00-9:45</b>	<b>Ravikumar Shanmugasundaram</b>	<b>Algorithmic Questions in Discrete Choice</b>			
<b>9:50-10:35</b>	<b>Nikhil Bansal</b>	<b>An algorithmic version of Banaszczyk's discrepancy theorem</b>			
<b>10:35-11:00</b>	<b>Coffee break</b>				
	<b>Graphs and applications</b>			<b>Algorithmic graph theory</b>	
	Phystech.Arctic, 4th floor			Biopharmaceutical Cluster, Aud. 106	
11:00- 11:20	Cns Vinoth Kumar	Chaotic Neural Networks Encryption Using GNN	11:30- 11:50	Mokeev Dmitry Borisovich	On the zero duality gap in the k-path vertex cover and the k-path packing problems in graphs
11:25-11:45	Boginski Vladimir	On maximum degree-based quasi-clique problem	11:55-12:15	Malyshev Dmitry Sergeevch	Recent Results On The Computational Complexity Of Some Classical Graph Problems For Hereditary Classes With Small-Size
11:50:12:10	Fieux Etienne	A hierarchy of dismantling operations in graphs	12:20:12:40	Sirotkin Dmitry	Complexity of the Vertex 3-Coloring problem for the hereditary graph classes with quadruples of small forbidden subgraphs
12:15-12:35	Latyshev Aleksei	For which graphs the sages can guess a color of at least one hat	12:45-13:05	Zeman Peter	Testing isomorphism of circular-arc graphs in polynomial time
<b>12:40-14:10</b>	<b>Lunch break</b>				
<b>Biopharmaceutical Cluster, Aud. 106</b>					
<b>14:10-14:55</b>	<b>Lutz Warnke</b>	<b>The phase transition in the random d-process</b>			
<b>15:00-15:45</b>	<b>Bruce Reed</b>	<b>The connectivity of random graphs with given degree sequences</b>			
<b>15:45-16:10</b>	<b>Coffee break</b>				
	<b>Network applications and processes on graphs</b>			<b>Random graphs, Dirac thresholds</b>	
	Phystech.Arctic, 4th floor			Biopharmaceutical Cluster, Aud. 106	
16:10-16:30	Gottschau Marinus	Influencing Opinion Formation	16:10-16:30	Trujic Milos	Randomness doubles the power
16:35-16:55	Jose Fernando Mendes	Structural stability of interaction networks against negative external fields	16:35-16:55	Condon Pdraig	Resilience of random graphs with respect to Hamiltonicity
17:00-17:20	Skopenkov Mikhail	Percolation, lattice gauge theory, and random graphs	17:00-17:20	Endre Csoka	Phase transitions in the independent sets of random graphs
17:25-17:45	Veremyev Alexander	Graph-based Exploration of Semantic Spaces	17:25-17:45	Su Pascal	Kr factors in graphs with low independence number
<b>18:00</b>	<b>Conference dinner</b>				
<b>14:20-20:00</b>	<b>WorkShop Network Optimization</b>				

<b>Friday, 17of May</b>					
<b>Biopharmaceutical Cluster, Aud. 106</b>					
9:00-9:45	Paul Joseph Wollan	Towards a structure theory for vertex minors			
9:50-10:35	János Pach	Many Pairwise Crossing Edges			
10:35-11:00	<i>Coffee break</i>				
	<b>Networks, algorithms and applications</b>			<b>Algebraic methods</b>	
	Phystech.Arctic, 4th floor			Biopharmaceutical Cluster, Aud. 106	
11:00- 11:20	Haddadan Shahrzad	On the Complexity of Sampling Vertices Uniformly from a Graph	11:00-11:20	Vorob'ev Konstantin	On improvements of Delsarte-Bier bounds for the Johnson scheme
11:25-11:45	Lawrencenko Serge	A note on two problems in connexion with networks	11:25-11:45	Mogilnykh Ivan	On equitable 2-partitions of Hamming graphs $H(n;q)$ with the second eigenvalue
11:50:12:10	Guarracino Mario Rosario	What can we learn from networks?	11:50:12:10	Potapov Vladimir	Splitting a hypercube into k-faces and DP-colorings of hypergraphs
12:15-12:35			12:15-12:35		
12:40-14:10	<i>Lunch break</i>				
<b>Biopharmaceutical Cluster, Aud. 106</b>					
14:10-14:55	Santo Fortunato	Consensus clustering in complex networks			
15:00-15:45	Panos Pardalos	Sustainable interdependent networks			
15:45-16:10	<i>Coffee break</i>				
	<b>Graphs and applications</b>			<b>Graph theory</b>	
	Biopharmaceutical Cluster, Aud. 105			Biopharmaceutical Cluster, Aud. 107	
16:10-16:30	Zawislak Stanislaw	Graph-Based Modelling Of Planetary Gears	16:10-16:30	Forcan Jovana	The WalkerMaker–WalkerBreaker games
16:35-16:55	Prokopyev Oleg	Sequential Shortest Path Interdiction with Incomplete Information and Limited Feedback	16:35-16:55	Hamidreza Golmohammadi	Some bounds on the Roman k-domination number in graphs
17:00-17:20	Natarajan Parthiban	Embedding Parameters in Interconnection Networks	17:00-17:20	Taranenko Anna	On a regularity method for multidimensional matrices
17:25-17:45			17:25-17:45		