# Workshop on Clustering and Search techniques in large scale networks

November 3rd – November 8th, 2014

Russian Science Foundation (RSF), Russia



### Monday, Nov 3rd

Participants arrival

### Tuesday, Nov 4th

Room 209 HSE, 136 Rodionova Str.

9:30-10:00 Registration of participants

10:00-10:50 Panos Pardalos

Lecture: Clustering and Search Techniques in Large Scale Networks

11:10-12:00 Mario Guarracino

Lecture: Mining Life: Opportunities and Challenges for the Data Scientist

12:10-13:00 Sonia Cafieri

Lecture: On Network Clustering by Modularity Maximization with Cohesion

**Conditions** 

13:00-14:30 Lunch Break

14:30-15:10 Valery Kalyagin

Seminar: Market Graph Model

15:20-16:00 Mario Guarracino

Seminar: Spectral based feature selection for a multiclass cell death

discrimination problem

16:10-16:50 Sonia Cafieri

Seminar: Hierarchical Network Clustering by Modularity Maximization

## Wednesday, Nov 5th

Room 209 HSE, 136 Rodionova Str.

10:00-10:50 Theodore Trafalis

Lecture: Bayesian Kernel Methods for Binary Classification and Online Learning Problems

11:10-12:00 Julius Žilinskas

Lecture: Multi-objective Optimization and Network Clustering

12:10-13:00 Pablo San Segundo

Lecture: Searching for Cliques of High Order in Large Scale Networks

13:00-14:30 Lunch Break

14:30-15:10 Theodore Trafalis

Seminar: Robust Optimization and Machine Learning for Classification of Noisy and Imbalanced Data

15:20-16:00 Julius Žilinskas

Seminar: On Bounding Fronts and Bounding Vectors in Multi-objective Optimization

16:10-16:50 Pablo San Segundo

Seminar: Searching for Cliques of High Order in Large Scale Networks

### Thursday, Nov 6th

Room 209 HSE, 136 Rodionova Str.

10:00-10:50 Nenad Mladenovic

Lecture: Primal-dual Variable Neighborhood Search for Clustering on Large Networks

11:10-12:00 Leonidas Pitsoulis

Lecture: Quality Functions in Graph Clustering

12:10-13:00 Mikhail Batsyn

Lecture: An Efficient Approach to the Protein Structure Alignment Problem

13:00-14:30 Lunch Break

14:30-15:10 Nenad Mladenovic

Seminar: Developing Variable Neighborhood Search (VNS)

15:20-16:00 Leonidas Pitsoulis

Seminar: Quality Functions in Graph Clustering

16:10-16:50 Mikhail Batsyn

Seminar: An Efficient Approach to the Protein Structure Alignment Problem

### Friday, Nov 7th

Room 209 HSE, 136 Rodionova Str.

10:00-11:20 Alexander Ponomarenko

Lecture and Seminar: Navigability of Complex Networks

11:40-13:00 Andrey Savchenko

Lecture and Seminar: Real-time Recognition of Piecewise-regular Objects

13:00-14:30 Lunch Break

14:30-16:30 Student session:

### Olga Gorynina

Experimental study of the accuracy of face recognition software in noisy environment

#### Ivan Grechikhin

EEG research with graph theory

#### Larisa Komosko

A fast greedy sequential heuristic for the vertex coloring problem

#### Maxim Kazakov

Market network for Russian stock market

### Ksenia Shipova

Cascade Classifier Training for the Problem of Video-Based Pedestrian Object Detection

#### Irina Utkina

A branch and bound algorithm for cell formation problem

#### Sergey Verentsov

Condorset's paradox and probability of its emergence

# Saturday, Nov 8th

Participants departure