

Examining Robustness and Vulnerability of
Critical Infrastructure Networks

Scientific Programme

June 3, 2013, Monday. Champions Hall of NSC Olimpiyskiy

- 08:30 Meeting at the hotel lobby; walking to
Champions Hall of NSC Olimpiyskiy
- 09:00-09:30 Opening Remarks by I. Sergienko
- 09:30-10:00 Panos M. Pardalos
Networks Everywhere
- 10:00-10:30 Coffee Break
- 10:30-11:00 Vitaliy Yatsenko
Mathematical Models of Sensor Network for
Detection of Chemical and Biological Agents:
Robustness, Risk Assessment, and Optimization
- 11:00-11:30 Leonidas Pitsoulis
Communities in Networks and Modularity
- 11:30-12:00 Ashwin Arulselvan
Detecting Critical Nodes in Sparse Networks
- 12:00-13:30 Lunch (not included)
- 13:30-14:00 Nenad Mladenovic
Continuous optimization by variable
neighborhood search
- 14:00-14:30 Oleg Burdakov
Local Search for Hop-Constrained Directed
Steiner Tree Problem With Application to UAV-
Based Multi-Target Surveillance
- 14:30-15:00 Coffee Break
- 15:00-15:30 Dalila Fontes
Including Hop-Constraints in Tree Networks
- 15:30-16:00 Vladimir Boginski
Diameter-based Robust Clusters in Networks
- 16:00-16:30 Pavlo Krokmal
Risk-Averse Stochastic Maximum Weighted
Clique Problem
- 18:00-21:00 Conference Dinner @Varenichnaya #1

June 4, 2013, Tuesday. Champions Hall of NSC Olimpiyskiy

- 09:00-09:30 Yury Evtushenko and Mikhail Posypkin
Deterministic Multicriteria Optimization
- 09:30-10:00 José Rubén Gómez, Joaquin Pacheco, and Hernán
Gonzalo-Orden
A Tabu Search method for a Bi-objective Urban



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- Waste Collection Problem
- 10:00-10:30 Coffee Break
- 10:30-11:00 Yannis Marinakis and Athanasios Migdalas
Multiobjective Particle Swarm Optimization
for a Multicast Routing Problem
- 11:00-11:30 Ilya Kurochkin and Yakov R. Grinberg
Different Criteria for Dynamic Routing in
Mathematical Simulation of Telecommunication
Networks
- 12:00-13:30 Lunch (not included)
- 13:30-14:00 Yaroslav Sergeyev
Lipschitz Global Optimization Algorithms
- 14:00-14:30 Fernando Fontes
Guaranteeing that Optimality Conditions are
Informative in Critical Decision Making
Scenarios
- 14:30-15:00 Coffee Break
- 15:00-15:30 Jose Principe
Estimating Entropy and Mutual Information in
Reproducing Kernel Hilbert Spaces
- 15:30-16:00 Nickolay Kuznetsov
Evaluation of s-t Reliability of Repairable
Networks by Fast Simulation Method
- 16:00-16:30 Petro Stetsyuk and Volodymyr Zhydkov
Two Types of Optimization Problems for the
Design of Fault-Tolerant Networks with
Optimum Capacity
- 16:30-17:00 Sergiy Butenko
Clique Relaxations in Unit Disk Graphs

**June 5, 2013, Wednesday. Conference Room of Institute for
Applied Systems Analysis.**

- 9:00 Meeting at the hotel lobby, traveling to KPI
- 10:00-10:30 Mykhailo Zgurovsky
- 10:30-11:00 Natalia Pankratova
- 11:00-11:30 Tatiana Romanova and Petro Stetsyuk
Optimal Robust Packing Circular Cylinders
into a Cylindrical Container
- 11:30-12:00 Yuriy Stoyan and Tatiana Romanova
Optimal Robust Packing in Space Engineering
Using Phi-function Technique



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12:00-13:30 Lunch (not included)

13:30-15:30 Tour of KPI Museum. Adjournment.



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Useful Information

Hotel

Holiday Inn Kiev (www.holidayinn.com/Kiev)
Chervonoarmiis'ka St, 100, Phone:+38-044-363-3000

Reservation Name: NATO Workshop
Block ID: 31950

Included with the reservation:

- Buffet breakfast
- Complimentary Wi-Fi
- In-room tea & coffee facilities
- A bottle of water
- Access to fitness room

Conference Facilities

June 3-4:
Champions Hall of NSC Olimpiyskiy
Chervonoarmiis'ka St, 55, Phone: +38-044-590-6708
<http://nsc-olimpiyskiy.com.ua/en/>

June 5:
Conference room of the Institute of Applied Systems
Analysis, KPI, 37 Prospekt Peremogy.

Conference Dinner Location

Varenichnaya #1
Esplanadna Str., 28,
<http://varenichnaya.com/en/>

Contact

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