

Workshop on Computational, Descriptive and Proof Complexity, and Algorithms

Independent University of Moscow, Russia, August 29–31, 2007

French–Russian Poncelet Laboratory, Moscow State University,
supported by Russian Foundation for Basic Research

Organizing committee:

Yuri Pritykin
Alexander Shen
Michael Tsfasman
Nikolai Vereshchagin

Invited speakers:

Farid Ablayev	Yury Makarychev
Maxim Babenko	Konstantin Pervyshev
Lev Beklemishev	Vladimir Podolskii
Harry Buhrman	Alexander Razborov
Andrew Goldberg	Jayalal Sarma
Edward Hirsch	Alexander Shen
Dmitry Itsykson	Alexander Vasiliev
Yury Lifshits	

Preliminary program

Farid Ablayev	<i>Classical Simulation Complexity of Bounded Error Quantum Branching Programs</i>
Maxim Babenko	<i>Generalized Path Structures in Graphs</i>
Lev Beklemishev	<i>Goedel Theorem for Very Weak Systems</i>
Harry Buhrman	<i>Quantum Computing</i>
Andrew Goldberg	<i>Point to Point Shortest Paths with Preprocessing</i>
Edward Hirsch	<i>What is the True Exponent for NP-hard Problems?</i>
Dmitry Itsykson	<i>One-way Function Based on an Average-Case Assumption</i>
Yury Lifshits	<i>Nearest Neighbors: Known Theoretical Results and Open Problems</i>
Yury Makarychev	<i>Embeddings of Finite Metric Spaces</i>
Yury Makarychev	<i>Semidefinite Programming</i>
Konstantin Pervyshev	<i>Recent Results on Time Hierarchies</i>
Vladimir Podolskii	<i>Perceptrons of Large Weight</i>
Alexander Razborov	<i>Grand Challenges of Proof Complexity</i>
Jayalal Sarma	<i>Complexity of Changing Matrix Rank</i>
Alexander Shen	<i>On-line Randomness</i>
Alexander Vasiliev	<i>On the Computational Power of Restricted k-OBDDs</i>

Information

The workshop consists of invited lectures of two types: tutorials and single talks. Topics include various fields of complexity theory, i. e., computational, Kolmogorov and proof complexity, combinatorial optimization, quantum computing, etc. Some other topics in theoretical computer science will be touched.

The workshop will be held in Independent University of Moscow (address: metro station Kropotkinskaya or Smolenskaya, 11 Bolshoi Vlasievskiy per.), room 310.

Do not hesitate to send any further questions and comments to yura@mccme.ru. Web page of the workshop: <http://www.mccme.ru/comp12007/>