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| Time | **June 24 (Tuesday)** |
| 09:00 – 13:00 | **School SBB-2014.****Section “Computational analysis of next-gen sequencing data”** |
| 09:00-09:45 | ***Recommended to attend:*****D. Liberles** University of Wyoming, USA**Lineage-specific processes of genome diversification****KEYNOTE TALK** |
| 10:00-11:00 | **Y. Ruan** The Jackson Laboratory, USA **Multi-dimensional gene regulation in cancer cells** |
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| 11:00-11:20 | **Coffee break** |
| 11:20-12:10 | **A. Morozov** BioMaPS Institute for Quantitative Biology, USA**Thermodynamics in biology: modeling gene regulation** |
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| 13:00-14:00 | **Lunch** |
| 14:00-14:35 | ***Recommended to attend:*****A. Rzhetsky** The University of Chicago, USA**Machine science**KEYNOTE TALK |
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| 16:00-16:20 | **Coffee break** |
|  | Attending BGRS sections |
| 17:00-18:30 | **PRACTICAL TRAINING** **(ICG SB RAS)****E.S. Tiys**Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia**Knowledge base on human proteome** |
| Time | **June 25 (Wednesday)** |
| 09:00 – 13:00 | **School SBB-2014.****Section “Evolutionary bioinformatics”** |
| 9:00-9:45 | ***Recommended to attend:*****L. Kaderali** University of Technology Dresden, Germany**Systems biology of host-pathogen interactions**(Small Hall) |
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| 9:50-10:30 | **C. Mitra**University of Hyderabad, Hyderabad, India**Monte Carlo methods for metabolic kinetics** |
| 11:00-11:20 | **Coffee break** |
| 11:20-12:05 | ***Recommended to attend:*****M. Binder** German Cancer Research Center, Heidelberg, Germany**Modelling of the hepatitis C virus life cycle****KEYNOTE TALK** |
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| 12:10-13:00 | **D. Liberles** Department of Molecular Biology, University of Wyoming, Laramie, USA**The lecture on sequence analysis pipelines to uncover lineage-specific evolution.** |
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| 17:00-18:00 | **School BB-2014. Practical training**(ICG SB RAS: Lavrentyeva, 10)**F.V.Kazantsev**Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia |
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| Time | **June 26 (Thursday)** |
| 09:00 – 13:00 | **School SBB-2014.****Section “Gene networks modeling and supercomputing”** |
| 09:00-09:30 | ***Recommended to attend:***B.G. Mikhailenko, B.M. Glinskiy, **N.V. Kuchin**, I.G. Chernykh**Siberian Supercomputer Center as a service for bioinformatics****KEYNOTE TALK** |
| 9:35-11:00 | **R. Hofestädt** Bielefeld University, Germany **Petri net modeling and simulation of metabolic pathways** |
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| 10:55-11:15 | **Coffee break** |
| 11:15-11:35 | ***Recommended to attend:*****I. V. Oseledets**Moscow, Russia**Numerical methods for high-dimensional problems in biology****KEYNOTE TALK** |
| 12:15-12:50 | ***Recommended to attend:*****A.V. Nedoluzhko** et al.National Research Center “Kurchatov Institute”, Moscow, Russia***De novo* assembly of the mitochondrial genome of ~5000-year-old human from North Caucasus****KEYNOTE TALK** |
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| 13:00-14:00 | **Lunch** |
| 14:00-17:40 | **School SBB-2014.****Presentations by young scientists** |
| 14:00-14:20 | **А**. **Barlukova**, S. Honoré, F. Hubert, M. Petit Aix-Marseille University, France**Dynamic instabilities of microtubules** |
| 14:20-14:40 | **A.A. Igolkina,** M.G. SamsonovaPetersburg State Polytechnical University**Method to predict thepercentage of cell types in human blood** |
| 14:40-15:00 | **A. Vitvitsky** Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia**Computer simulation of self-organization in the bacterial Mincde system**  |
| 15:00-15:20 | **T. Gamilov** Moscow Institute of Physics and Technology, Dolgoprudnyy, Russia**1D modelling of different time regimes of enhanced external counterpulsation**  |
| 15:20-15:40 | **A**. **Gurkov**, E.M. Kondratyeva, D.S. Bedulina Institute of Biology at Irkutsk State University, Irkutsk, Russia**IMAGEJ addon for 2D electrophoresis gel analysis**  |
| 15:55-16:15 | Coffee break |
| 16:15-16:35 | **U**. **Gusev**, M.I. Chumakov Institute of Biochemistry and Physiology of Plants and Microorganisms RAS, Saratov, Russia**Evaluation of Vire2-complexes by molecular dynamic methods**  |
| 16:35-16:55 | **A. Katugina,** U.F. Kartavtsev Institute of Marine Biology FEB RAS, Vladivostok, Russia**Comparative genetic analysis of three species of the genus Tribolodon (Cyprinidae, Cypriniformes) based on sequence data of mitochondrial DNA CO-1 gene**  |
| 16:40-17:00 | **L.A**. **Krasnobaeva**, L.V. Yakushevich Siberian State Medical University, Tomsk, Russia**Rotational dynamics of bases in the gene coding interferon alpha 17 (IFNA17)**  |
| 17:00-17:20 | **E. Kulakova** Novosibirsk State University, Russia**Computer data analysis of genome sequencing by technology ChIP-seq and Hi-C**  |
| 17:20-17:40 | **K. Korla**School of Life Sciences, University of Hyderabad, India**Kinetic simulation of mitochondrial shuttles** |
| Time | **June 27 (Friday)** |
| 09:00 – 13:00 | **School SBB-2014.** **Presentations by young scientists** |
| 9:00-9:20 | **V.V. Lavrekha**, N.A. Omelyanchuk, V.V. Mironova Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia **Modeling of cell dynamics in the root apical meristem with dynamical grammar** |
| 9:20-9:40 | **S. Maltseva**, A.P. Chupakhin, А.А. Cherevko, A.K. Khe, E.U. Derevtsov, A.E. AkulovInstitute of Mathematics SB RAS, Novosibirsk, Russia**Reconstrucrion of the mouse brain vasculature according to the data of high-field MRI scanner** |
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| 9:40-10:00 | **N**. **Nikitina**, E.E. Ivashko, Y. Gupta, R. Lüdwig, S. Möller.Institute of Applied Mathematical Research Karelian Research Center RAS, Petrozavodsk, Russia**Boinc-based desktop GRID infrastructure for virtual drug screening** |
| 10:00-10:20 | V. Mironova, **D. Novikova**Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia**Auxin-induced changes of transcriptome in *Arabidopsis thaliana* l. roots.** |
| 10:20-10:40 | **I. Protsyuk**UniPro (Новосибирск), Россия**Shared bioinformatics databases within Unipro UGENE** |
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| 10:40-11:00 | **O**. **Perfilyeva** ICG SB RAS, Novosibirsk, Russia**Mathematical modeling of peptidoglycan precursor biosynthesis in the cytoplasm of Esherichia coli cell** |
| 11:00-11:20 | **Coffee break** |
| 11:20-11:40 | **I. Pinskyi**, A. Ivashchenko Al-Farabi Kazakh National University, Almaty, Kazakhstan**miRNAs binding to mRNAs of rice Myb genes**  |
| 11:40-12:00 | **N.V. Sviridova**, K. Sakai Computing Center FEB RAS, Khabarovsk, Russia**Application of nonlinear time series analysis for hemodynamic model validation on the base of photoplethysmogram signal** |
| 12:00-12:20 | **N**. **Safronova**, Y.L. Orlov ICG SB RAS, Novosibirsk, Russia**Computer analysis of human SNP containing sites by methods of text complexity estimations**  |
| 12:20-12:40 | **A. Sergeev** Institute of Mathematical Problems of Biology RAS, Puschino, Russia**Graph database for molecular biology- advantages of the graph representation of data**  |
| 13:00-14:00 | **Lunch** |
| 14:00-17:00 | **School SBB-2014.** **Presentations by young scientists.** **Nomination of best presentations** |
| 14:00-14:20 | **V**. **Sokolov**, U.G. Matushkin ICG SB RAS, Novosibirsk, Russia**Analysis of bacteria and archaea genomes available in GenBank database by “Eloe” program**  |
| 14:20-14:40 | **A**. **Spitsina**, V.M. Efimov, V.N. Babenko, Y.L. OrlovICG SB RAS, Novosibirsk, Russia**Computer analysis of human gene expression data using BioGPS database of Affymetrix microarrays** |
| 14:40-15:00 | **T.S**. **Troeglazova**, D.Ja. Baishibaev, A.V. Penenko, S.V. Nikolaev, U. Zubairova Novosibirsk State University, Russia**On a parallel algorithm for morpho-gene diffusion-reaction processes simulation on a 2D cell ensemble**  |
| 15:00-15:20 | **V. Chernova,** A. Doroshkov, V. Mironova, N. Omelyanchuk ICG SB RAS, Novosibirsk, Russia**PIN-transporters in the root meristem of Arabidopsis thaliana l- image analysis of expression patterns** |
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| 18:30-19:00 | CLOSING CEREMONY AWARD FOR THE BEST YOUNG SCIENTISTS REPORTS |