NEC-2015 Program

September 28

Opening Plenary

Chair: Bird Ian	
09.00-10.00	**Welcome of JINR – Matveev Victor**
	Welcome of CERN – Kurtyka Tadeusz
	Welcome of Montenegro government
	Welcome of Municipality of Budva
	Welcome of Montenegrin scientific community
	Welcome of Russian Ambassador to Montenegro
	Welcome of NEC'2015 Local Organizing Committee – Hrgian Andrey
	Welcome of sponsors (IBS Platformix, Jet Infosystems, Niagara)
10.00-10.30	**Matveev Victor (JINR) - The JINR Scientific Program.**
10.30-11.00	**Mapelli Livio (CERN) –The CERN Scientific Program - Is there life after Higgs?**
11.00-11.30	*Coffee break*
Chair: Korenkov Vladimir	
11.30-12.00	**Kurtyka Tadeusz, Schaefer Christoph (CERN) - Collaboration of CERN with CIS and South-East-European countries.**
12.00-12.30	**Bird Ian (CERN). The evolution of the WLCG grid.**
12.30-14.00	**LUNCH**
Chair: Kurtyka Tadeusz	
14.00-14.30	**Lamanna Massimo (CERN). Large-scale data services for science: present and future challenges.**
14.30-15.00	**Korenkov Vladimir (JINR). Status and perspectives of Laboratory of Information Technology at JINR.**
15.00-15.30	**Peshekhonov Dmitry (JINR). Status of the NICA project at JINR.**
15.30-15.50	*Coffee break*
Chair: Lamanna Massimo	
15.50-16.10	**Paramonov Aleksandr (IBS Platformix, Moscow). Virtualization of computations - new approaches and technologies: from data storage systems to desktops.**
16.10-16.30	**Struchenko Alexey (Jet Infosystems, Moscow). The main approach to Big Data parallel processing: Oracle way.**
16.30-16.50	**Garanov Dmitry (Niagara, Moscow). Supermicro/Niagara Innovation Technologies.**

Welcome Party

September 29

	Detector & Nuclear Electronics
	Chair: Vankov Ivan
10.00-10.20	**Dimitrov Lubomir (INRNE BAN, Sofia). Radiation Monitoring of the GEM Muon Detectors at CMS.**
10.20-10.35	**Strekalovsky Oleg (JINR). Trigger Module for Spectrometer with DT5742 Digitizers**
10.35-10.50	**Buryakov Mikhail (JINR). Status of the Front-end-Electronics based on the NINO ASIC for the Time-of-Flight measurements in the MPD.**
10.50-11.05	**Borisov Vladimir (JINR). Magnetic measurement system for series production of NICA superconducting magnets. Data acquisition, control and data analysis.**
11.05-11.25	*Coffee break*
	Chair: Gorbachev Evgeny
11.25-11.40	**Kuznetsov Aleksey (JINR). Electronic devices for multichannel setups in FLNR.**
11.40-11.55	**Motycak Stefan (JINR). New beam diagnostic system for MASHA setup .**
11.55-12.10	**Gorbunov Nikolay (JINR). Groundbased complex for checking the optical system of the TUS experiment.**

LUNCH 12.10-14.00

	Triggering, Data Acquisition, Control Systems		
	Chair: Mapelli Livio		
14.00-14.30	**Gorbachev Evgeny (JINR). Status of the Nuclotron and NICA control system development.**		
14.30-14.50	**Karetnikov Maxim (VNIIA , Moscow). Multidetector system for nanosecond tagged neutron technology.**		
14.50-15.10	**Tsyganov Yury (JINR). New trends in development of "Active Correlation" Technique.**		
15.10-15.30	*Coffee break*		
	Chair: Gorbunov Nikolay		*Chair: Karetnikov Maxim*
15.30-15.45	**Monakhov Dmitrii (JINR). Development of tools for real-time betatron tune measurement at Nuclotron.**	15.30-15.45	**Voinov Alexey (JINR). New Analog Electronics for the New Challenges in the SHEs Synthesis .**
15.45-16.00	**Sedykh Georgy (JINR). The thermometry system of superconducting magnets test bench for the NICA accelerator complex .**	15.45-16.00	**Murashkevich Svetlana (JINR). DeLiDAQ-2D – a new data acquisition system for position-sensitive neutron detectors with delay-line readout.**
16.00-16.15	**Andreev Vasily (JINR). TANGO Standard Software for Nuclotron Beam Slow Extraction Control.**	16.00-16.15	**Novoselov Aleksey (JINR). Data acquisition system for focal plane detector of mass separator MASHA –**

16.15-16.30	Shirikov Ilyia (JINR). Low Level Radio Frequency system of NICA linac.	16.15-16.30	Ponkin Dmitriy (JINR). ESIS KRION-6T beam emittance measurement device .
16.30-16.45	Filippov Ivan (JINR). DAQ software in MPD experiment NICA .	16.30-16.45	Zamriy Victor (JINR). Host-based data acquisition system to control pulsed facilities of the accelerator .
16.45-17.00	Rogov Victor (JINR). L0 Trigger unit for BM@N setup.	16.45-17.00	Yudin Andrey (JINR). Automatization of control channel 8 of Phasotron at DLNP of JINR.
17.00-17.15	Terletskiy Andrey (JINR). Data acquisition electronics at BM@N.	17.00-17.15	Slepov Ivan (JINR). Creating interactive video broadcast system at VBLHEP.
17.15-17.30	Egorov Dmitry (JINR). Slow Control system at BM@N experiment.		

Workshop "From Local File Catalog to Name space publisher + meta-catalog" : 10:00 – 18:00

September 30

	ATLAS DAQ
	Chair: Peshekhonov Dmitry
09.00-9.15	**Zivkovic Lidija (Institute of Physics Belgrade, Serbia). Real-time flavour tagging selection in ATLAS.**
09.15-9.30	**Sawyer Lee (Louisiana Tech University). The ATLAS Jet Trigger Software and Performance for LHC Run 2.**
09.30-9.45	**Ryan White (Universidad Técnica Federico Santa María). The Upgrade of the ATLAS Electron and Photon Triggers towards LHC Run 2 and their Performance.**
09.45 – 10.05	*Coffee break*
	Chair: Sawyer Lee
10.05-10.20	**Qin Yang (University of Manchester). The design and performance of the ATLAS Inner Detector trigger for Run 2.**
10.20-10.35	**Asbah Needa (DESY). A Hardware Fast Tracker for the ATLAS trigger.**
10.35-10.50	**Tatsuya Mori (The University of Tokyo). Phase-I Trigger Readout Electronics Upgrade of the ATLAS Liquid-Argon Calorimeters .**
10.50-11.10	*Coffee break*
	Non-relational databases and heterogeneous repositories
	Chair: Peters Andreas
11.10-11.40	**Barberis Dario (University and INFN Genova). Evolution of the use of relational and NoSQL databases in the ATLAS experiment.**
11.40-11.55	**Gertsenberger Konstantin (JINR). The unified database for the fixed target experiment BM@N.**
11.55-12.10	**Kyaw Thurein (Saint Petersburg State University). Parallel Database support for Distributed Computing.**
12.10-12.25	**Bashsashin Maksim (JINR). NICA Project Management Information System.**
12.25-12.40	**Filozova Irina (JINR). Concept of JINR Corporate Information System.**

LUNCH 12.40-14.00

Excursion: 14:00 – 20:00

October 1

	Distributed Computing. GRID & Cloud computing
	Chair: Al-Turany Mohammad
9.00-9.30	**Bukowiec Sebastian (CERN). CERN LHC run 2 on OpenStack.**
9.30-10.00	**Bogdanov Aleksander ((Saint Petersburg State University).). Desktop supercomputer: what can it do?**
10.00-10.30	**Andreeva Julia (CERN). Migration of the WLCG monitoring infrastructure to a new technology stack .**
10.30-10.50	**Ososkov Gennady (JINR). Simulation concept of NICA-MPD-SPD Tier0-Tier1 computing facilities.**
10.50-11.10	*Coffee break*
	Chair: Fuhrmann Patrick
11.10 -11. 30	**Klimentov Alexei (BNL) and Krasnoprvtsev Dimitrii (National Research Nuclear University MEPhI). Study of ATLAS TRT performance with GRID and supercomputers.**
11.30-12.00	**Peters Andreas (CERN). EOS - evaluating object drives and non-volatile memory.**
12.00-12.30	**Tsaregorodtsev Andrei (CPPM-IN2P3-CNRS). Status of the DIRAC Project: overview and recent developments.**

LUNCH 12.30-14.00

Distributed Computing. GRID & Cloud computing (cont.)		Computations with Hybrid Systems (CPU, GPU, coprocessors)	
Chair: Lokajicek Milos		*Chair: Degtyarev Alexander*	
14.00-14.15	**Kundrat Jan (Institute of Physics of the AS CR and CESNET). Grids and Clouds in the Czech Republic.**	14.00-14.30	**Zrelov Petr (JINR) - HybriLIT : status report.**
14.15-14.30	**Degteariov Nichita (RENAM). Scientific Computing Infrastructure and Services in Moldova.**		
14.30-14.45	**Yermolchyk Vitaly (NC PHEP BSU). Usage of cloud platform for the BY-NCPHEP Tier3 site.**	14.30-14.45	**Kulabukhova Nataliia (Saint Petersburg State University). Virtual Accelerator Laboratory: the symbolic presentation for space charge fields.**
14.45-15.05	*Coffee break*		
Chair: Ilyin Slava		*Chair: Ososkov Gennady*	
15.05-15.20	**Furano Fabrizio (CERN IT/SDC). Dynamic federation of grid and**	15.20-15.35	**Pepelyshev Yury (JINR). Application of cluster analysis and autoregressive neural networks for the noise diagnostics of the**

	cloud storage.		IBR-2M reactor.
15.20-15.35	Kutovskiy Nikolay (JINR). Cloud infrastructure at JINR.	15.35-15.50	Ivashchenko Andrei (St.Petersburg State University). System of HPC content archiving.
15.35-15.50	Semenov Roman (JINR). Creating cloud storage system at JINR .	15.50-16.05	Iuzhanin Nikolai (Saint Petersburg State University). Impact of Configuration Management system of computer center on support of scientific projects throughout their lifecycle.
15.50-16.05	Balashov Nikita (JINR). Optimization of over-provisioned clouds.	16.05-16.20	Gankevich Ivan (Saint-Petersburg State University). Resource and task management tools for physics applications.
16.05-16.20	Pelevanyuk Igor (JINR). BES-III distributed computing.	16.20-16.35	Guschansky Dmitry (Saint-Petersburg State University). Social Data Collection and Processing Framework.
16.20-16.35	Boger Evgeny (JINR). Parallel computing with BEAN – BES-III Analysis Framework.		
16.35-16.50	Manoshin Sergey (JINR). Professional simulations of neutron spectrometers and experiments by VITESS software package.		
16.50-17.05	Kouzinopoulos Charalampos (CERN). Performing Track Reconstruction at the ALICE TPC using a Fast Hough Transform method.		
17.05-17.20	A.Demichev, A.Kryukov (SINP MSU). Design of Web platform for science and engineering in the model of open market		

CONFERENCE DINNER

October 2

	Computing for Large Scale Accelerator Facilities (LHC, FAIR, NICA, etc.) and Big Data	
Chair: Andreeva Julia		
9.00-9.30	**Al-Turany Mohammad (GSI/CERN). ALFA: Next generation concurrent framework for ALICE and FAIR experiments.**	
9.30-10.00	**Vukotic Ilija (University of Chicago). Data analytics in the ATLAS Distributed Computing.**	
10.00-10.30	**Klimentov Alexei (BNL). Integration Of PanDA Workload Management System With Supercomputers.**	
10.30-10.50	**Borodin Mikhail (NRNU MEPHI, NRC KI). The Next Generation ATLAS Production System.**	
10.50-11.10	*Coffee break*	
Chair: Barberis Dario		
11.10-11.40	**Fuhrmann Patrick (DESY). dCache, Sync-and-Share for Big Data.**	
11.40-12.10	**Velikhov Vasily (National Research Centre "Kurchatov Institute"). Complex for mega-science data modeling and processing.**	
12.10-12.40	**Degtyarev Alexander (Saint-Petersburg State University). Big Data processing: test results.**	

LUNCH 12.40-14.00

	Workload Management Systems in Applied Research and BigData		Innovative IT Education with use of IT-technologies	
	Chair: Klimentov Alexei		*Chair: Cheremisina Evgenia*	
14.00-14.20	**Cheremisina Evgenia (Dubna University). New technologies of 2-D & 3-D modeling for analysis and management of natural resources.**		14.00-14.20	**Panebrattsev Yury (JINR). Educational Project for the STAR Experiment at RHIC.**

14.20-14.40	Ryabinkin Eygene (National Research Centre "Kurchatov Institute"). Tier-1 in Kurchatov Institute: first months of operations during Run-2.	14.20-14.40	Sakharov Iurii (Dubna University). Transition to Standard 3+ and Optimization of the Universities Network in Russia
14.40-14.55	Strizh Tatiana (JINR). JINR TIER-1 Centre for the CMS Experiment at LHC.	14.40-14.55	Belaga Victoria (JINR). Hardware-Software Complex "Virtual Laboratory of Nuclear Fission" for LIS Experiment (Flerov Laboratory of Nuclear Reactions, JINR).
14.55-15.10	Tikhonenko Elena (JINR). Status of RDMS CMS Computing.	14.55-15.10	Klygina Ksenia (JINR). Web-based Builder of Digital Educational Resources.
15.10-15.25	Tsutskiridze Niko (Georgian Technical University). Simulation Loop between CAD systems, Geant4 and GeoModel: Implementation and Results.	15.10-15.25	Tyatyushkina Olga/Tokareva Nadezhda (Dubna university). E-learning as a technological tool to meet the requirements of professional standards in training of IT specialists
15.25-15.40	Bednyakov Ivan (JINR). LGD cluster LNP as a basic platform for tasks of the ATLAS Experiment .	15.25-15.40	Samoylenko Yury (Dubna university). Adaptive educational environment in the IT field of study reacting on changes in the labor market.
15.40-15.55	Osipova Victoriya (Tomsk Politechnic University). Efficient Data Management Tools for the Heterogeneous Big Data Warehouse.	15.40-15.55	Karlov Aleksandre (JINR). Virtualization in Education - Information Security lab in your pocket.
15.55-16.10	Grigorieva Maria (National Research Centre "Kurchatov Institute"). The development of hybrid metadata storage for PanDA Workload Management System.	15.55-16.10	Tokareva Nadezhda (Dubna university), Belov Mikhail (Dubna University) and Perlyak Sergey (Dubna University). Virtual Computer Laboratory 2.0. 3D Graphics as Service. Methodological aspects of the use in research and education.
<mark>16.10-16.30</mark>	*Coffee break*		
Chair: Tsaregorodtsev Andrei		*Moderators: Klimentov Alexei, Korenkov Vladimir, Korotkov Mikhail, Kurtyka Tadeusz*	
16.30-16.45	Petrosyan Artem (JINR). PanDA for COMPASS at JINR.	16.30 – 17.45	**ROUND TABLE (in Russian)**

16.45-17.00	**Favareto Andrea (University and INFN Genova). Use of the Hadoop structured storage tools for the ATLAS EventIndex event catalogue.**		**"Russian research, scientific and educational centers coherent and consolidated efforts in computing research and software development for mega-science projects in HENP and other compute-intensive sciences in Russia"**
17.00-17.15	**Barrientos Arias Ignacio (CERN). Configuration management at CERN.**		
17.15-17.30	**Abrahamyan Suren (Saint-Petersburg State University). Collaboration and decision making tools for mobile groups.**		
17.30-17.45	**Parubets Valeriy (Tomsk Polytechnic University). Mathematical modeling of heterogeneous distributed data storages.**		

Closing : 18:00