

**Preliminary agenda  
of the XXIX-th International Workshop  
on High Energy Physics**

**“NEW RESULTS and ACTUAL  
PROBLEMS in PARTICLE &  
ASTROPARTICLE PHYSICS and  
COSMOLOGY”**

*IHEP, Protvino, Russia  
June 26-28, 2013*



## The Time Schedule

Wednesday, June 26	Thursday, June 27	Friday, June 28
<i>N. Tyurin</i>	<i>A. Sheshukov</i>	<i>A. Cherepashchuk</i>
<i>R. Nikolaidou</i>	<i>T. Dzhatdoev</i>	<i>A. Zakharov</i>
<i>G. Bernardi</i>	<i>M. Smy</i>	<i>M. Katanaev</i>
<i>F. Riva</i>	<i>N. Titov</i>	<i>A. Mitra</i>
<i>B. Arbuzov</i>	<i>A. Lubashevskiy</i>	<i>S. Crothers</i>
<i>A. Knochel</i>	<i>Yu. Kudenko (M. Khabibullin)</i>	<i>Panel discussion</i>
<i>Panel discussion</i>	<i>Panel discussion</i>	<i>E. Anderson</i>
<i>S. Kabana</i>	<i>O. Zenin</i>	<i>A. Mitra</i>
<i>O. Evdokimov</i>	<i>A. Bylinkin</i>	<i>V. Sokolov</i>
<i>E. Pozdeeva</i>	<i>D. Pszczel</i>	<i>A. Dolgov</i>
<i>V. Zakharov</i>	<i>A. Petrukhin</i>	<i>V. Dvoeglazov</i>
<i>B. Adeva</i>	<i>V. Petrov</i>	<i>V. Rubakov</i>
<i>C. Ferro</i>	<i>A. Bazilevsky</i>	<i>Panel discussion</i>
<i>F. Ratnikov</i>	<i>A. Prokudin</i>	
<i>K. Kotov</i>	<i>Panel discussion</i>	
<i>Panel discussion</i>		
	<b>CONCERT</b>	
<i>Welcome drink</i>	<i>Workshop Dinner</i>	<i>Farewell Drink</i>

## Registration

*Wednesday, June 26 - IHEP, Theoretical Division 9:00-10:30*

See information desk for details

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- the Russian Foundation for Basic Research, grant no. 13-02-06068-р
- Institute for High Energy Physics, Protvino
- Dynasty: a Non-Profit Foundation, Moscow

## Wednesday, June 26

Morning session 9:30-13:15

Chairperson: *Alexander Zaitsev*

- 9:30 **Nikolai Tyurin** (*IHEP, Protvino, Russia*)  
"Opening address"  
9:40 **Rosy Nikolaidou** (*CEA/IRFU, Saclay, France*)  
"Overview of the Higgs boson searches at the LHC"  
10:10 **Gregorio Bernardi** (*Fermilab, Batavia, USA*)  
"Higgs studies at the Tevatron"

10:40-11:00 Coffee break

Chairperson: *Vladimir Petrov*

- 11:00 **Francesco Riva** (*EPFL, Lausanne, Switzerland*)  
"Higgs at least"  
11:30 **Boris Arbuzov** (*SINP, Moscow, Russia*)  
"On possible interpretation of the LHC Higgs-like state in the framework of the non-perturbative effective interaction of  $W$  bosons"  
12:00 **Alexander Knochel** (*ITTK RWTH, Aachen, Germany*)  
"The Higgs, a Higgs or Higgs-like alternatives?"

12:30-13:15 Panel discussion on Higgs boson

Moderator: *Valery Kiselev*

13:25-14:05 Lunch

Afternoon session 14:15-19:05

Chairperson: *Michael Smy*

- 14:15 **Sonja Kabana** (*SUBATECH, Nantes, France*)  
"Review of the physics of Quark Gluon Plasma"  
14:45 **Olga Evdokimov** (*University of Illinois, Chicago, USA*)  
"Recent results on heavy ions at RHIC"  
15:15 **Ekaterina Pozdeeva** (*SINP MSU, Moscow, Russia*)  
"Quark-gluon plasma multiplicity from AdS spaces modifications"  
15:30 **Valentin Zakharov** (*ITEP, Moscow, Russia*)  
"Quark-gluon plasma, challenges to theory"

16:00-16:20 Coffee break

Chairperson: *Alexey Prokudin*

- 16:20 **Bernardo Adeva** (*University of Santiago de Compostela, Spain*)  
"Recent results from the LHCb experiment"  
16:50 **Cristina Ferro** (*NCU, Taipei, Taiwan / CERN, Geneva, Switzerland*)  
"Top quark physics results from LHC"  
17:20 **Fedor Ratnikov** (*KIT, Karlsruhe, Germany*)  
"Searches for supersymmetry at LHC"  
17:50 **Khristian Kotov** (*Ohio State University, Columbus, USA*)  
"Exotica, beyond two generations"

18:20-19:05 Panel discussion on QGP

Moderator: *Valentin Zakharov*

19:10 Welcome Drink

## Thursday, June 27

Morning session 9:30-13:20

Chairperson: *Fedor Ratnikov*

- 9:30 **Andrey Sheshukov** (*JINR, Dubna, Russia*)  
"OPERA experiment"  
9:55 **Timur Dzhatdoev** (*PNPI MSU, Moscow, Russia*)  
"Search for neutrino oscillations in appearance mode with the OPERA experiment"  
10:15 **Michael Smy** (*University of California, Irvine, USA*)  
"Super-Kamiokande results"

10:50-11:10 Coffee break

Chairperson: *Gregorio Bernardi*

- 11:10 **Nikita Titov** (*INR, Moscow, Russia*)  
"KATRIN experiment: status and perspectives 2013"  
11:30 **Alexey Lubashevskiy** (*MPIK, Heidelberg, Germany*)  
"Status and results of the GERDA experiment"  
11:55 **Yury Kudenko, Marat Khabibullin** (*INR, Moscow, Russia*)  
"Neutrino oscillations: recent results and perspectives"

12:35-13:20 Panel discussion on Neutrino Problems

Moderator: *Vladimir Obraztsov*

13:30-14:30 Lunch

Afternoon session 14:40-18:45

Chairperson: *Sergey Troshin*

- 14:40 **Oleg Zenin** (*IHEP, Protvino, Russia*)  
"SM and QCD results at the LHC"  
15:10 **Alexander Bylinkin** (*ITEP, Moscow, Russia*)  
"DIS at HERA and new phenomenological model for hadroproduction"  
15:30 **Damian Pszczel** (*NCNR, Warsaw, Poland; Uppsala University*)  
"Search for the U boson in WASA@COSY experiment"  
15:50 **Anatoly Petrukhin** (*MEPhI, Moscow*)  
"What can we learn from nuclei-nuclei interactions at LHC?"

16:10-16:30 Coffee break

Chairperson: *Bernardo Adeva*

- 16:30 **Vladimir Petrov** (*IHEP, Protvino, Russia*)  
"High-energy scattering from a space-time perspective"  
17:00 **Alexander Bazilevsky** (*BNL, New York, USA*)  
"Spin results at RHIC"  
17:30 **Alexey Prokudin** (*JLAB, Newport News, USA*)  
"Inward horizons of the spinning nucleons"

18:00-18:45 Panel discussion on SM&Beyond

Moderator: *Alexey Prokudin*

19:00 CONCERT

20:00 Conference dinner

## Friday, June 28

Morning session 9:30-13:00

Chairperson: *Valery Kiselev*

9:30 **Anatoly Cherepashchuk** (SAI MSU, Moscow, Russia)

*"Black holes in binary systems and galaxy nuclei"*

10:00 **Alexander Zakharov** (ITEP, Moscow, Russia)

*"Supermassive black hole at the galactic center"*

10:30 **Mikhail Katanaev** (MI RAS, Moscow, Russia)

*"Point massive particle in general relativity"*

10:55-11:15 Coffee break

Chairperson: *Alexander Knochel*

11:15 **Abhas Kumar Mitra** (BARC, Mumbai, India)

*"Einsteinian revolution's misinterpretation: no true black holes, no information paradox, but just quasi-static balls of quark gluon plasma"*

11:45 **Stephen Crothers** (AIAS, Sunshine Plaza, Australia)

*"Theoretical flaws in black hole theory and general relativity"*

12:15-13:00 Panel discussion on Black Holes

Moderator: *Skiff Sokolov*

13:10-14:05 Lunch

Afternoon session 14:15-18:25

Chairperson: *Yuri Zinoviev*

14:15 **Edward Anderson** (Cambridge University, DAMTP, UK)

*"On semiclassical quantum cosmology becoming a numerical subject"*

14:45 **Abhas Kumar Mitra** (BARC, Mumbai, India)

*"Einsteinian revolution's wrong turn: lumpy interacting cosmos assumed as smooth perfect fluid: no dark energy"*

15:15 **Vladimir Sokolov** (SAO RAS, Nizhnij Arkhyz, Russia)

*"The gamma-ray bursts, core-collapse supernovae and global star forming rate at large redshifts"*

15:45-16:05 Coffee break

Chairperson: *George Pronko*

16:05 **Alexander Dolgov** (University of Ferrara, Italy/NSU, Novosibirsk/ITEP, Moscow)

*"High energy gravitational waves from the early Universe"*

16:30 **Valeriy Dvoeglazov** (University of Zacatecas, Mexico)

*"Notoph-Graviton-Photon coupling"*

16:50 **Valery Rubakov** (INR, Moscow, Russia)

*"TBA"*

17:20-18:05 Panel discussion on Cosmology

Moderator: *Edward Anderson*

18:05 **Vladimir Petrov** (IHEP, Protvino, Russia)

*"Closing address"*

18:30 Farewell drink

## List of participants

<b>Adeva Bernardo</b>	Univ. of Santiago de Compostela, Spain	<b>Ratnikov Fedor</b>	KIT, Karlsruhe, Germany
<b>Anderson Edward</b>	Cambridge Univ., DAMTP, UK	<b>Riva Francesco</b>	EPFL, Lausanne, Switzerland
<b>Arbuzov Boris</b>	SINP MSU, Moscow, Russia	<b>Rubakov Valery</b>	INR, Moscow
<b>Bazilevsky Alexander</b>	BNL, New York, USA	<b>Sheshukov Andrey</b>	JINR, Dubna
<b>Bernardi Gregorio</b>	Fermilab, Batavia, USA	<b>Sibiryakov Sergey</b>	INR, Moscow
<b>Bylinkin Alexander</b>	ITEP, Moscow	<b>Smy Michael</b>	Univ. of California, Irvine, USA
<b>Cherepashchuk Anatoly</b>	SAI MSU, Moscow	<b>Sokolov Vladimir</b>	SAO RAS, Nizhnii Arkhyz
<b>Crothers Stephen</b>	AIAS, Sunshine Plaza, Australia	<b>Titov Nikita</b>	INR, Moscow
<b>Dolgov Alexander</b>	Univ. of Ferrara, Italy; NSU, Novosibirsk, ITEP, Moscow	<b>Zakharov Alexander</b>	ITEP, Moscow
<b>Dvoeglazov Valeriy</b>	Univ. of Zacatecas, Mexico	<b>Zakharov Valentin</b>	ITEP, Moscow
<b>Dzhatdoev Timur</b>	PNPI MSU, Moscow	<b>Zenin Oleg</b>	IHEP, Protvino, Russia
<b>Evdokimov Olga</b>	University of Illinois, Chicago, USA	<b>Godizov Anton</b>	IHEP, Protvino, Russia
<b>Ferro Cristina</b>	NCU, Taipei, Taiwan; CERN, Geneva, Switzerland	<b>Ivanov Sergey</b>	IHEP, Protvino, Russia
<b>Kabana Sonja</b>	SUBATECH, Nantes, France	<b>Kabachenko Vasily</b>	IHEP, Protvino, Russia
<b>Katanaev Michail</b>	MI RAS, Moscow	<b>Kiselev Valery</b>	IHEP, Protvino, Russia
<b>Khabibullin Marat</b>	INR, Troitsk	<b>Likhoded Anatoly</b>	IHEP, Protvino, Russia
<b>Khotyantsev Alexey</b>	INR, Moscow, Troitsk	<b>Obraztsov Vladimir</b>	IHEP, Protvino, Russia
<b>Knochel Alexander</b>	ITTK RWTH, Aachen, Germany	<b>Petrov Vladimir</b>	IHEP, Protvino, Russia
<b>Kotov Khristian</b>	Ohio State Univ., Columbus, USA	<b>Pronko George</b>	IHEP, Protvino, Russia
<b>Kudenko Yury</b>	INR, Moscow	<b>Ryabov Yury</b>	IHEP, Protvino, Russia
<b>Kumar Mitra Abhas</b>	BARC, Mumbai, India	<b>Ryutin Roman</b>	IHEP, Protvino, Russia
<b>Lubashevskiy Alexey</b>	MPIK, Heidelberg, Germany	<b>Sadovsky Sergei</b>	IHEP, Protvino, Russia
<b>Nikolaidou Rosy</b>	CEA/IRFU, Saclay, France	<b>Sokolov Skiff</b>	IHEP, Protvino, Russia
<b>Petrukhin Anatoly</b>	MEPhI, Moscow	<b>Troshin Sergey</b>	IHEP, Protvino, Russia
<b>Pszczel Damian</b>	NCNR, Warsaw, Poland; Uppsala Univ.	<b>Tyurin Nikolai</b>	IHEP, Protvino, Russia
<b>Pozdeeva Ekaterina</b>	SINP MSU, Moscow	<b>Zaitsev Alexander</b>	IHEP, Protvino, Russia
<b>Prokudin Alexei</b>	JLAB, Newport News, USA	<b>Zinoviev Yuri</b>	IHEP, Protvino, Russia