

# General Information

All the scientific program including the opening ceremony is held at the Lebedev Institute, Leninsky Prospect, 53.

The Welcome Party will be on Monday, May 28 (at Coffee-break Hall at Lebedev Institute) and the Banquet on Thursday, May 31.

Lunch (buffet): During the Conference, lunch (buffet) will be served in the restaurant of the Korston Hotel, which is a 15-20 minute walk from the Lebedev Institute. Every day there will be shuttles to and from the Korston Hotel for the lunch.

Bus schedule during the Conference

	Korston→LI	LI→Korston	Gallery→LI	LI→Gallery
Monday, May 28	8.35, 13.45-14.15	13.00-13.30 21.00, 21.30	8.35	21.00
Tuesday, May 29	8.25, 13.45-14.15	13.00-13.30 19.00	8.25	19.00
Wednesday, May 30	8.25	13.00-13.30	8.25	
Thursday, May 31	8.25, 13.45-14.15	13.00-13.30	8.25	
	18.00 - bus for accompanying persons from Korston Hotel to LI 18.15 - bus for accompanying persons from Gallery Hotel to LI 18.30 - from LI to banquet in Academy of Sciences Presidium			
Friday, June 1	8.25, 13.45-14.15	13.00-13.30, 19.00	8.25	19.00
Saturday, June 2	8.25	13.00-13.30	8.25	
	14.15 - from Korston Hotel to Gallery Hotel			

# Sponsors of the Conference

- Dmitry Zimin Dynasty Foundation
- Russian Academy of Sciences
- Ministry of Education and Science of the Russian Federation
- Russian Foundation for Basic Research
- Arnold Sommerfeld Center, LMU, Munich
- U.S. Office of Naval Research Global

# List of sections

## **Astrophysics**

Coordinators: Vasily Beskin, Vladimir Dogiel

## **Superstrings and Higher-Spin Gauge Theory**

Coordinators: Ruslan Metsaev, Mikhail Vasiliev

## **Quantum Field Theory**

Coordinators: Mikhail Soloviev, Igor Tyutin, Boris Voronov

## **High Energy Physics**

Coordinators: Igor Dremin, Andrei Leonidov

## **Quantum Gravity and Cosmology**

Coordinator: Andrei Barvinsky

## **Condensed Matter Physics**

Coordinators: Petr Arseev, Yuri Uspenskii

## **Nonlinear Dynamics**

Coordinators: Vladimir Gubernov, Andrei Polezhaev

# Schedule

## **Monday, May 28**

8.30- 9.15	Registration
9.15- 9.45	Opening
9.45-10.30	Plenary Session
10.30-11.00	Coffee-Break
11.00-13.00	Sectional Sessions
13.00-14.30	Lunch
14.30-16.30	Sectional Sessions
16.30-17.00	Coffee-Break
17.00-18.30	Memorial Session
19.00	Welcome Party

## **Tuesday, May 29**

9.00-10.30	Plenary Session
10.30-11.00	Coffee-Break
11.00-13.00	Sectional Sessions
13.00-14.30	Lunch
14.30-16.30	Sectional Sessions
16.30-17.00	Coffee-Break
17.00-19.00	Sectional Sessions

## **Wednesday, May 30**

9.00-10.30	Plenary Session
10.30-11.00	Coffee-Break
11.00-13.00	Sectional Sessions
13.00-14.30	Lunch
15.00	Excursion

## **Thursday, May 31**

9.00-10.30	Plenary Session
10.30-11.00	Coffee-Break
11.00-13.00	Sectional Sessions
13.00-14.30	Lunch
14.30-16.30	Sectional Sessions
16.30-17.00	Coffee-Break
17.00-18.30	Sectional Sessions
19.00	Banquet

## **Friday, June 1**

9.00-10.30	Plenary Session
10.30-11.00	Coffee-Break
11.00-13.00	Sectional Sessions
13.00-14.30	Lunch
14.30-16.30	Sectional Sessions
16.30-17.00	Coffee-Break
17.00-19.30	Sectional Sessions

## **Saturday, June 2**

9.00-10.30	Sectional Sessions
10.30-11.00	Coffee-Break
11.00-12.30	Plenary Session
12.30-13.00	Closing
13.00-14.30	Lunch

# Public Lectures

In conjunction with the Ginzburg Conference on Physics being held in the Lebedev Institute, there will be free public lectures, which should be of interest to a general scientific audience and to many members of the general public.

Public lectures will be held on **Saturday, June 2, 2012**, at 16.00. They are open to everyone and admission is free.

Lecturers:

**Herman Verlinde** (*Princeton Univ.*)

Black Holes: Searching for the Key to Nature's Secrets

**Rashid Sunyaev** (*Max-Planck Inst. for Astrophysics, Space Research Inst., Moscow, Inst. for Advanced Study, Princeton*)

Hot Intergalactic Gas in Clusters of Galaxies, Cosmic Microwave Background and Cosmology

Public Lectures are organized and sponsored by the Dmitry Zimin Dynasty Foundation (Russia), one of the first Russian family foundations ([www.dynastyfdn.com](http://www.dynastyfdn.com)), which specializes in support and promotion of fundamental research



# Monday

8.30- 9.15 Registration  
9.15- 9.45 Opening

## Plenary

9.45-10.30 G.Tonelli (Main Conference Hall)

10.30-11.00 Coffee-Break

## Sectional

<b>Astrophysics</b> (Astro Conference Hall)	<b>Superstrings and Higher-Spin Gauge Theory</b> (Main Conference Hall)	<b>Quantum Field Theory</b> (Ginzburg Conference Hall)
11.00-12.00 R.Sunyaev 12.00-12.30 K.-S.Cheng 12.20-13.00 R.Rafikov	11.00-11.30 R.Kallosh 11.30-12.00 D.Sorokin 12.00-12.30 P.Vanhove 12.30-13.00 S.Gukov	11.00-11.30 K.Bering 11.30-12.00 P.Lavrov 12.00-12.30 S.Lyakhovich 12.30-13.00 M.Olshanetsky
13.00-14.30 Lunch		
14.30-15.00 P.Haensel 15.00-15.30 D.Yakovlev 15.30-16.00 A.Melatos 16.00-16.30 S.Bogovalov	14.30-15.00 P.Sundell 15.00-15.30 C.Iazeolla 15.30-16.00 D.Francia 16.00-16.30 T.Hartman	14.30-15.00 V.Kazakov 15.00-15.30 L.Bork 15.30-16.00 I.Samsonov 16.00-16.30 A.Smilga
16.30-17.00 Coffee-Break		
<b>17.00 - 18.30 Memorial Session</b> (Main Conference Hall)		
19.00 Welcome Party		



# May 28

## Session

## Sessions

<b>Quantum Gravity and Cosmology</b> (Library Hall)	<b>High Energy Physics</b> (Physics Hall)	<b>Condensed Matter Physics</b> (Tamm Conference Hall)
11.00-11.30 M.Sasaki 11.30-12.00 P.Binetruy 12.00-12.30 V.Frolov 12.30-13.00 D.Galtsov	11.00-11.30 V.Gavrilov 11.30-12.00 A.Minaenko 12.00-12.30 A.Sorin 12.30-13.00 N.Brook	11.00-11.30 I.Bozovic 11.30-12.00 I.Mazin 12.00-12.30 O.Dolgov 12.30-13.00 M.Kulic
13.00-14.30 Lunch		
14.30-15.00 R.Woodard 15.00-15.30 C.Kiefer 15.30-16.00 A.Kamenshchik 16.00-16.30 TBA	14.30-15.00 B.Sinha 15.00-15-30 I.Dremin 15.30-16.00 A.Snigirev 16.00-16.30 O.Teryaev	14.30-15.00 D.Khomskii 15.00-15-30 S.Ovchinnikov 15.30-16.00 D.van der Marel 16.00-16.30 S.Savrasov
16.30-17.00 Coffee-Break		
<b>17.00 - 18.30 Memorial Session</b> (Main Conference Hall)		
19.00 Welcome Party		

# Tuesday

## Plenary

9.00- 9.45 M.Scully (Main Conference Hall)

9.45-10.30 H.Verlinde (Main Conference Hall)

10.30-11.00 Coffee-Break

## Sectional

<b>Astrophysics</b> (Astro Conference Hall)	<b>Superstrings and Higher-Spin Gauge Theory</b> (Main Conference Hall)	<b>Quantum Field Theory</b> (Physics Hall)
11.00-12.00 R.Blandford 12.00-12.30 C.-M.Ko 12.30-13.00 A.Cherepashchuk	11.00-11.30 C.Hull 11.30-12.00 I.Bandos 12.00-12.30 M.Cederwall 12.30-13.00 M.Schnabl	11.00-11.30 G.Efimov 11.30-12.00 M.Soloviev 12.00-12.30 A.Semikhatov 12.30-13.00 A.Galajinsky
13.00-14.30 Lunch		
14.30-15.00 V.Lukin 15.00-15.30 N.Vlahakis 15.30-16.00 M.Barkov 16.00-16.30 V.Kocharovskiy	14.30-15.00 A.Sagnotti 15.00-15.30 J.Buchbinder 15.30-16.00 A.Jevicki 16.00-16.30 R.Metsaev	14.30-15.00 A.Rukhadze 15.00-15.30 Yu.Makeenko 15.30-16.00 M.Mensky 16.00-16.30 V.Manko
16.30-17.00 Coffee-Break		
17.00-17.30 D.Bisikalo 17.30-18.00 I.Okamoto 18.00-18.30 Yu.Gnedin 18.30-19.00 S.Fabrika 19.00-19.30 L.Pustil'nik	17.00-17.30 N.Boulanger 17.30-18.00 D.Ponomarev 18.00-18.30 M.Valenzuela	

# May 29

## Session

### Sessions

<b>Quantum Gravity and Cosmology</b> (Library Hall)	<b>Condensed Matter Physics</b> (Tamm Conference Hall)	<b>Nonlinear Dynamics</b> (Ginzburg Conference Hall)
11.00-11.30 C.Deffayet 11.30-12.00 S.Sibiryakov 12.00-12.30 D.Levkov 12.30-13.00 E.Babichev	11.00-11.30 M.Feigelman 11.30-12.00 I.Burmistrov 12.00-12.30 M.Kagan 12.30-13.00 Yu.Kopaev	11.00-11.30 V.Kurdyumov 11.30-12.00 V.Gubernov 12.00-12.30 A.Starik 12.30-13.00 A.Starik
13.00-14.30 Lunch		
14.30-15.00 A.Filippov 15.00-15.30 M.Libanov 15.30-16.00 M.Katanaev 16.00-16.30 A.Zelnikov	14.30-15.00 L.Pitaevskii 15.00-15.30 S.Sharapov 15.30-16.00 V.Volkov 16.00-16.25 V.Pudalov	14.30-15.00 V.Bykov 15.00-15.30 N.Smirnov 15.30-16.00 W.Ebeling 16.00-16.30 Yu.Romanovsky
16.30-17.00 Coffee-Break		
17.00-17.30 S.Vernov 17.30-18.00 S.P.Miao 18.00-18.30 L.Modesto 18.30-19.00 E.Pozdeeva		17.00-17.30 E.Kuznetsov

# Wednesday

## Plenary

9.00- 9.45 V.Klyatskin (Main Conference Hall)

9.45-10.30 L.Faddeev (Main Conference Hall)

10.30-11.00 Coffee-Break

## Sectional

<b>Astrophysics</b> (Astro Conference Hall)	<b>Superstrings and Higher-Spin Gauge Theory</b> (Main Conference Hall)	<b>Quantum Gravity and Cosmology</b> (Library Hall)
11.00-11.30 I.Toptygin 11.30-12.00 A.Bykov 12.00-12.30 V.Zirakashvili 12.30-13.00 D.Chernyshov	11.00-11.30 D.Luest 11.30-12.00 E.Bergshoeff 12.00-12.30 P.Fre 12.30-13.00 B.Zupnik	11.00-11.30 V.Berezin 11.30-12.00 M.Volkov 12.00-12.30 V.Dokuchaev 12.30-13.00 O.Zaslavskii
13.00-14.30 Lunch		
<b>15.00 Excursion</b>		

# May 30

## Session

### Sessions

<b>High Energy Physics</b> (Physics Hall)	<b>Condensed Matter Physics</b> (Tamm Conference Hall)	
11.00-11.30 M.Vysotsky 11.30-12.00 D.Diakonov 12.00-12.30 O.Andreev 12.30-13.00 S.Godunov	11.00-11.30 A.Chaplik 11.30-12.00 R.Suris 12.00-12.30 A.Iosevich 12.30-13.00 P.Arseev	
13.00-14.30 Lunch		
<b>15.00 Excursion</b>		

# Thursday

## Plenary

9.00- 9.45 A.Starobinsky (Main Conference Hall)

9.45-10.30 X.Yin (Main Conference Hall)

10.30-11.00 Coffee-Break

## Sectional

<b>Astrophysics</b> (Astro Conference Hall)	<b>Superstrings and Higher-Spin Gauge Theory</b> (Main Conference Hall)	<b>Quantum Gravity and Cosmology</b> (Library Hall)
11.00-11.30 B.Rudak 11.30-12.00 R.Ekers 12.00-12.30 G.Brunetti 12.30-13.00 G.Fleishman	11.00-11.30 A.Tseytlin 11.30-12.00 K.Zarembo 12.00-12.30 G.Arutyunov 12.30-13.00 H.Samtleben	11.00-11.30 A.Vilenkin 11.30-12.00 A.Barvinsky 12.00-12.30 A.Vikman 12.30-13.00 D.Fursaev
13.00-14.30 Lunch		
14.30-15.00 L.Dorman 15.00-15.30 A.Goldwurm 15.30-16.00 H.Inoue 16.00-16.30 V.Berezinsky	14.30-15.00 H.Verlinde 15.00-15.30 T.McLoughlin 15.30-16.00 H.Dorn 16.00-16.30 A.Gorsky	14.30-15.00 K.Maeda 15.00-15.30 D.Polarski 15.30-16.00 B.Altshuler 16.00-16.30 D.Nesterov
16.30-17.00 Coffee-Break		
17.00-17.30 K.Ferriere 17.30-18.00 A.Lagutin 18.00-18.30 D.Sob'yanin	17.00-17.30 R.Manvelyan 17.30-18.00 K.Alkalaev 18.00-18.30 A.Reshetnyak	<b>Astrophysics</b> (Library Hall)  17.00-17.30 F.Melia 17.30-18.00 V.Lukash 18.00-18.30 M.Medvedev
19.00 Banquet		

# May 31

## Session

### Sessions

<b>High Energy Physics</b> (Physics Hall)	<b>Condensed Matter Physics</b> (Tamm Conference Hall)	<b>Nonlinear Dynamics</b> (Ginzburg Conference Hall)
11.00-11.30 B.Zakharov 11.30-12.00 E.-M.Ilgenfritz 12.00-12.30 A.Leonidov 12.30-13.00 V.Filinov	11.00-11.30 A.Lichtenstein 11.30-12.00 V.Anisimov 12.00-12.30 M.Sadovskii 12.30-13.00 A.Rubtsov	11.00-11.30 A.Pikovsky 11.30-12.00 E.Volkov 12.00-12.30 I.Aronson 12.30-13.00 M.Monastyrsky
13.00-14.30 Lunch		
14.30-15.00 K.Fukushima 15.00-15.30 V.Shevchenko 15.30-16.00 A.Andrianov 16.00-16.30 V.Nechitailo	14.30-15.00 A.Zaikin 15.00-15.30 A.Semenov 15.30-16.00 A.Melnikov 16.00-16.30 A.Korotkov	14.30-15.00 V.Zykov 15.00-15.30 A.Panfilov 15.30-16.00 H.Vershelde 16.00-16.30 A.Polezhaev
16.30-17.00 Coffee-Break		
17.00-17.30 V.Grichine 17.30-18.00 M.Alfimov 18.00-18.30 G.Sharov		
19.00 Banquet		

# Friday

## Plenary

9.00- 9.45 D.Kazakov (Main Conference Hall)

9.45-10.30 K.Thorne (Main Conference Hall)

10.30-11.00 Coffee-Break

## Sectional

<b>Astrophysics</b> (Astro Conference Hall)	<b>Superstrings and Higher-Spin Gauge Theory</b> (Main Conference Hall)	<b>Quantum Field Theory</b> (Physics Hall)
11.00-11.30 A.Wolfendale 11.30-12.00 N.Prantzos 12.00-12.30 V.Ptuskin 12.30-13.00 A.Galper	11.00-11.30 M.Gaberdiel 11.30-12.00 S.Giombi 12.00-12.30 M.Grigoriev 12.30-13.00 A.Sharapov	11.00-11.30 B.Ovrut 11.30-12.00 L.Chekhov 12.00-12.30 I.Ginzburg 12.30-13.00 S.Lebedev
13.00-14.30 Lunch		
14.30-15.00 L.Zelenyi 15.00-15.30 S.Bulanov 15.30-16.00 V.Tsytoich 16.00-16.30 D.Sokoloff	14.30-15.00 K.Stelle 15.00-15.30 E.Ivanov 15.30-16.00 Yu.Zinoviev 16.00-16.30 M.Taronna	
16.30-17.00 Coffee-Break		
17.00-17.30 D.Uzdensky 17.30-18.00 V.Skalozub 18.00-18.30 O.Tsupko 18.30-19.00 S.Nagataki 19.00-19.30 I.Kovalenko		



# June 1

## Session

### Sessions

<b>Quantum Gravity and Cosmology</b> (Library Hall)	<b>Condensed Matter Physics</b> (Tamm Conference Hall)	<b>Nonlinear Dynamics</b> (Ginzburg Conference Hall)
11.00-11.30 B.-L.Hu 11.30-12.00 T.Tanaka 12.00-12.30 M.Iofa 12.30-13.00 TBA	11.00-11.30 A.Rosch 11.30-12.00 Yu.Lofovik 12.00-12.30 K.Kikoin 12.30-13.00 Yu.Uspenskii	11.00-11.30 I.Sokolov 11.30-12.00 S.Fedotov 12.00-12.30 A.Leonidov 12.30-13.00 A.Chechkin
13.00-14.30 Lunch		
14.30-15.00 B.Whiting 15.00-15.30 V.Vanyashin 15.30-16.00 A.Toporensky 16.00-16.30 C.Steinwachs		15.00-15.30 V.Klyatskin 15.30-16.00 V.Sirota 16.00-16.30 E.Rumanov
16.30-17.00 Coffee-Break		
<b>Astrophysics</b> (Library Hall)		
17.00-17.30 I.Novikov 17.30-18.00 L.Marochnik 18.00-18.30 A.Chernin 18.30-19.00 I.Royzen		

# Saturday

## Sectional

<b>Astrophysics</b> (Astro Conference Hall)	<b>Superstrings and Higher-Spin Gauge Theory</b> (Main Conference Hall)	<b>Quantum Field Theory</b> (Physics Hall)
9.00- 9.30 M.Tsventoukh 9.30-10.00 B.Coppi 10.00-10.30 E.Waxman	9.00- 9.30 X.Yin 9.30-10.00 M.Vasiliev 10.00-10.30 I.Aref'eva	9.00- 9.30 A.Slavnov 9.30-10.00 I.Volovich 10.00-10.30 V.Mukhanov
10.30-11.00 Coffee-Break		

## Plenary

11.00-11.45 V.Frolov (Main Conference Hall)

11.45-12.30 A.Wolfendale (Main Conference Hall)

<b>12.30-13.00 Closing</b>
13.00-14.30 Lunch

# June 2

## Sessions

<b>Quantum Gravity and Cosmology</b> (Library Hall)		
9.00- 9.30 D.Gorbunov 9.30-10.00 F.Bezrukov 10.00-10.30 A.Nikishov		
10.30-11.00 Coffee-Break		

## Session

<b>12.30-13.00 Closing</b>
13.00-14.30 Lunch

# Plenary Talks

## Monday, May 28

9.45-10.30 **G.TONELLI**  
(*CERN*)  
**LHC Results on the Search for the SM Higgs Boson**

## Tuesday, May 29

9.00- 9.45 **M.SCULLY**  
(*Texas A&M Univ.*)  
**QUANTUM PHOTOCCELL: Increasing Efficiency via Quantum Coherence**

9.45-10.30 **H.VERLINDE**  
(*Princeton Univ.*)  
**Gravity: How can it Arise from Gauge Theory?**

## Wednesday, May 30

9.00- 9.45 **V.KLYATSKIN**  
(*Obukhov Inst. of Atmospheric Phys., Moscow*)  
**On the Criterion of Stochastic Structure Formation in Random Media**

9.45-10.30 **L.FADDEEV**  
(*Steklov Inst., St.-Petersburg*)  
**The New Life of the of Integrability (Solitons, Spin Chains and Some Aspects of High Energy Physics)**

## Thursday, May 31

9.00- 9.45      **A.STAROBINSKY**  
*(Landau Inst., Chernogolovka)*  
**Dark Energy: Observational Properties and  
Theoretical Modelling**

9.45-10.30      **X.YIN**  
*(Harvard Univ., Cambridge)*  
**Dissecting Holography with Higher Spins**

## Friday, June 1

9.00- 9.45      **D.KAZAKOV**  
*(JINR, Dubna)*  
**Constraints on Supersymmetry Using 5/fb  
LHC Data**

9.45-10.30      **K.THORNE**  
*(California Inst. of Technology)*  
**Black Holes: A New Golden Age**

## Saturday, June 2

11.00-11.45      **V.FROLOV**  
*(Univ. of Alberta)*  
**Black Hole Concept**

11.45-12.30      **A.WOLFENDALE**  
*(Durham Univ.)*  
**Cosmic Rays: an Overview**

# Sectional Talks

# Astrophysics

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Monday, May 28

- 11.00-12.00     **R.SUNYAEV**  
(*Space Research Inst., Moscow & Max Planck Inst. for Astrophysics, Garching*)  
**The Black Body Photosphere of our Universe; Bose-Einstein and Y-type CMB Spectrum Distortions due to Energy Release in the Early Universe; Experimental Prospects**
- 12.00-12.30     **K.-S.CHENG**  
(*Univ. of Hong-Kong*)  
**High Energy Emission from Pulsars**
- 12.20-13.00     **R.RAFIKOV**  
(*Princeton Univ.*)  
**Signposts of Planetary Systems around Metal-Rich White Dwarfs**
- 14.30-15.00     **P.HAENSEL**  
(*Copernicus Astronomical Center, Warszawa*)  
**Maximum Measured Mass of Neutron Stars and Equation of State of neutron Star Core**
- 15.00-15.30     **D.YAKOVLEV**  
(*Ioffe Inst., S.-Petersburg*)  
**Cooling Neutron Stars and Superfluidity of Superdense Matter**
- 15.30-16.00     **A.MELATOS**  
(*Univ. of Melbourne*)  
**Nonequilibrium Avalanche Processes in Quantum Fluids in Neutron Stars**
- 16.00-16.30     **S.BOGOVALOV**  
(*Moscow Engineering Physics Inst.*)  
**Generation of VHE Pulsed Radiation by the Pulsar Wind from Crab**



## Tuesday, May 29

- 11.00-12.00     **R.BLANDFORD**  
(*Kavli Inst. for Particle Astrophysics and Cosmology*)  
**Holes, Jets and Cosmic Rays**
- 12.00-12.30     **C.-M.Ko**  
(*National Central Univ., Taiwan*)  
**Modified Newtonian Dynamics and its Application to Gravitational Lensing and Galactic Dynamics**
- 12.30-13.00     **A.CHEREPASHCHUK**  
(*Sternberg Inst., Moscow Univ.*)  
**Black Holes in Binary Systems and Galactic Nuclei**
- 14.30-15.00     **V.LUKIN**  
(*Keldysh Inst. of Applied Mathematics, Moscow*)  
**Jets in Nature**
- 15.00-15.30     **N.VLAHAKIS**  
(*Univ. of Athens*)  
**Magnetized Astrophysical Jets**
- 15.30-16.00     **M.BARKOV**  
(*Max Planck Inst. for Nuclear Phys., Heidelberg & Space Research Inst., Moscow*)  
**Rapid TeV and GeV Variability in AGNs as Result of Jet-Star Interaction**
- 16.00-16.30     **V.KOCHAROVSKY**  
(*Inst. of Applied Physics, N.Novgorod*)  
**Spectral Redistribution of Gyroresonant Photons and Cyclotron Line Formation in Magnetized Atmospheres of Compact Stars**

- 17.00-17.30 **D.BISIKALO**  
*(Inst. of Astronomy, Moscow)*  
**Accretion Disks and Envelopes in Close Binary Stars**
- 17.30-18.00 **I.OKAMOTO**  
*(National Astronomical Observatory, Tokyo)*  
**How does Unipolar Induction Work in a Kerr Black Hole?**
- 18.00-18.30 **YU.GNEDIN**  
*(Pulkovo Observatory, St.-Petersburg)*  
**Polarimetric Method of Determining Magnetic Fields in Accretion Disks around Black Holes**
- 18.30-19.00 **S.FABRIKA**  
*(Special Astrophysical Observatory, N.Arkhыз)*  
**Supercritical Accretion Disks with Black Holes**
- 19.00-19.30 **L.PUSTIL'NIK**  
*(Tel Aviv Univ.)*  
**Magnetic Accretion in Long-Period X-Ray Pulsars**

## Wednesday, May 30

- 11.00-11.30 **I.TOPTYGIN**  
*(Polytechnical Univ., S.-Petersburg)*  
**Peculiarities of Rare Ions Acceleration by Helical Turbulence in Solar Flares**
- 11.30-12.00 **A.BYKOV**  
*(Ioffe Inst., S.-Petersburg)*  
**Nonthermal Emission of Supernova Remnants**

- 12.00-12.30 **V.ZIRAKASHVILI**  
*(Inst. of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation, Troitsk)*  
**Acceleration of Cosmic Rays on the Forward and Reverse Shocks in Supernova Remnants**
- 12.30-13.00 **D.CHERNYSHOV**  
*(Lebedev Inst., Moscow)*  
**Stochastic Acceleration of Particles and Problem of Plasma Overheating**

## Thursday, May 31

- 11.00-11.30 **B.RUDAK**  
*(Copernicus Astronomical Center, Warszawa)*  
**Prospects for Studies of the local Universe with CTA**
- 11.30-12.00 **R.EKERS**  
*(Australia Telescope National Facility)*  
**Radio Wavelength Evidence for High Energy Particles in the Nearby Universe**
- 12.00-12.30 **G.BRUNETTI**  
*(Italian Nat.Inst. for Astrophysics, Bologna)*  
**Turbulence, Cosmic Rays and Non-Thermal Emission in Galaxy Clusters**
- 12.30-13.00 **G.FLEISHMAN**  
*(New Jersey Inst. of Technology)*  
**Cosmic Magnetobremstrahlung: Fast Computing Codes and 3D Modeling Tools**
- 14.30-15.00 **L.DORMAN**  
*(Tel Aviv Univ.)*  
**100-th Anniversary of CR Discovery, Development of Different CR Aspects and Contribution of V.L.Ginzburg in CR Astrophysics, Applications to the Problem on Space Weather Effects on Satellites, People Health, and the Earth's Environment**

- 15.00-15.30 **A.GOLDWURM**  
(*CEA Saclay*)  
**High Energy Activity of the Massive Black Hole at the Center of our Galaxy**
- 15.30-16.00 **H.INOUE**  
(*Institute of Space and Astronautical Science, JAXA.*)  
**Two Topics on Temporal and Spectral Variations of X-Ray Sources**
- 16.00-16.30 **V.BEREZINSKY**  
(*INFN, Gran Sasso National Lab.*)  
**UHE Neutrino Astronomy: the View from 2012**
- 17.00-17.30 **K.FERRIERE**  
(*Univ. de Toulouse*)  
**Interstellar Magnetic Fields**
- 17.30-18.00 **A.LAGUTIN**  
(*Altai State Univ., Barnaul*)  
**Anomalous Diffusion of Cosmic Rays in the Galaxy**
- 18.00-18.30 **D.SOB'YANIN**  
(*Lebedev Inst., Moscow*)  
**Generalized Superstatistics, Branching Processes, and Pair Production in a Neutron Star Magnetosphere**
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- 17.00-17.30 **F.MELIA**  
(*Univ. of Arizona*)  
**The  $R_h = ct$  Universe**
- 17.30-18.00 **V.LUKASH**  
(*Astro Space Center, Lebedev Inst., Moscow*)  
**Early Universe, Black Holes and Cosmogenesis**

18.00-18.30

**M.MEDVEDEV**

*(Kansas Univ.)*

**Cosmological Simulations Evidence in Favor of Multi-Component Flavor-Mixed Cold Dark Matter**

## Friday, June 1

11.00-11.30

**A.WOLFENDALE**

*(Durham Univ.)*

**Fine Structure in Cosmic Ray Spectra Clues as to the Origin of the “Radiation”**

11.30-12.00

**N.PRANTZOS**

*(Inst. d’Astrophysique de Paris)*

**The Composition of Cosmic Rays and the Origin of Light Nuclides**

12.00-12.30

**V.PTUSKIN**

*(Inst. of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation, Troitsk)*

**Galactic Cosmic Rays: Acceleration in Supernova Remnants and Transport in Interstellar Magnetic Fields**

12.30-13.00

**A.GALPER**

*(Moscow Engineering Physics Inst.)*

**Progress in Gamma-Ray Astronomy in Russia**

14.30-15.00

**L.ZELENYI**

*(Space Research Inst., Moscow)*

**“Dark” Electric Fields in the Earth Magnetotail and their Observable Manifestations**

15.00-15.30

**S.BULANOV**

*(Kansai Photon Science Inst., Kyoto)*

**Extreme Field limits in the Interaction of Electromagnetic Waves with Matter**

- 15.30-16.00 **V.TSYTOVICH**  
(*General Phys. Inst., Moscow*)  
**Physics of Transition Scattering and Some Recent Observations**
- 16.00-16.30 **D.SOKOLOFF**  
(*Moscow Univ.*)  
**Stellar Activity Waves: New Ideas**
- 17.00-17.30 **D.UZDENSKY**  
(*Univ. of Colorado, Boulder*)  
**Magnetic Reconnection and Radiation in Astrophysics**
- 17.30-18.00 **V.SKALOZUB**  
(*Dnepropetrovsk Univ.*)  
**Spontaneous Vacuum Magnetization as the Source of Long Range Magnetic Fields in the Hot Universe**
- 18.00-18.30 **O.TSUPKO**  
(*Space Research Inst., Moscow*)  
**Gravitational Lensing in Presence of Plasma**
- 18.30-19.00 **S.NAGATAKI**  
(*Kyoto Univ.*)  
**Numerical Simulations of Central Engine of Long Gamma-Ray Bursts**
- 19.00-19.30 **I.KOVALENKO**  
(*Volgograd Univ.*)  
**Recent Progress in Understanding of Astrophysical Turbulence**
- 
- 17.00-17.30 **I.NOVIKOV**  
(*Astro Space Center, Lebedev Inst., Moscow & Niels Bohr Inst., Copenhagen*)  
**Stability Analysis of Wormhole**

- 17.30-18.00 **L.MAROCHNIK**  
*(Univ. of Maryland)*  
**Birth of Dark Energy by Quantum Metric Fluctuations**
- 18.00-18.30 **A.CHERNIN**  
*(Sternberg Inst., Moscow Univ.)*  
**Global Dark Energy and Local Gravity-Antigravity Interplay**
- 18.30-19.00 **I.ROYZEN**  
*(Lebedev Inst., Moscow)*  
**Non-Trivial QCD Vacuum against Black Holes of a Stellar Mass**

## Saturday, June 2

- 9.00- 9.30 **M.TSVENOUKH**  
*(Lebedev Inst., Moscow)*  
**On the Generation and Disruption of a Picosecond Runaway Electron Beam in Air at Strong Overvoltage**
- 9.30-10.00 **B.COPPI**  
*(Massachusetts Inst. of Tech., Cambridge)*  
**Shining Black Holes: Associated Classes of Plasma and Field Configurations and Magneto Gravitational Modes Characteristics**
- 10.00-10.30 **E.WAXMAN**  
*(Weizmann Inst. of Science, Rehovot)*  
**A New Mechanism for Deflagration to Detonation Transitions**

# Superstrings and Higher Spin Gauge Theory

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Monday, May 28

- 11.00-11.30     **R.KALLOSH**  
*(Stanford Univ.)*  
**On Absence of Ultraviolet Divergences in Supergravity**
- 11.30-12.00     **D.SOROKIN**  
*(INFN, Padova)*  
**Covariant Actions for Models with Non-Linear Twisted Self-Duality**
- 12.00-12.30     **P.VANHOVE**  
*(IHES & Inst. Physique Theor., CEA-Saclay)*  
**The ultraviolet Behaviour of N=4 and N=8 Supergravity**
- 12.30-13.00     **S.GUKOV**  
*(California Inst. of Technology, Pasadena)*  
**Quantization in Modern Mathematics and Physics**
- 14.30-15.00     **P.SUNDELL**  
*(Univ. de Mons)*  
**BRST-BV Treatment of Vasiliev's Four-Dimensional Higher-Spin Gravity**
- 15.00-15.30     **C.IAZEOLLA**  
*(Scuola Normale Superiore, Pisa)*  
**Families of Exact Solutions of 4D Higher-Spin Gravity with Spherical, Cylindrical and Biaxial Symmetry**
- 15.30-16.00     **D.FRANCIA**  
*(Inst. of Physics, Prague)*  
**TBA**



16.00-16.30 **T.HARTMAN**  
(*Inst. for Advanced Study, Princeton*)  
**TBA**

## Tuesday, May 29

11.00-11.30 **C.HULL**  
(*Imperial College, London*)  
**Double Field Theory and Duality**

11.30-12.00 **I.BANDOS**  
(*Basque Country Univ.*)  
**BMN Matrix Model from Multiple M0-Brane Equations in Eleven Dimensional pp-Wave Superspace**

12.00-12.30 **M.CEDERWALL**  
(*Chalmers Univ. of Technology, Goteborg*)  
**The Gauge Structure of Generalised Geometry**

12.30-13.00 **M.SCHNABL**  
(*Inst. of Physics, Prague*)  
**Boundary State from Ellwood Invariants**

14.30-15.00 **A.SAGNOTTI**  
(*Scuola Normale Superiore and INFN, Pisa*)  
**CMB Imprints of a Pre-Inflationary Climbing Phase**

15.00-15.30 **J.BUCHBINDER**  
(*Tomsk Pedagog. Univ.*)  
**Cubic Interaction Vertex of Higher-Spin Fields with External Electromagnetic Field**

15.30-16.00 **A.JEVICKI**  
(*Brown Univ., Providence*)  
**A Constructive Approach to AdS/CFT and Higher Spin Gravity**

- 16.00-16.30 **R.METSAEV**  
*(Lebedev Inst., Moscow)*  
**BRST-BV Approach to Cubic Vertices of  
Higher-Spin Fields**
- 17.00-17.30 **N.BOULANGER**  
*(Univ. de Mons)*  
**Comments about Higher-Spin and Duality.  
Part I: Spin-2 and E11**
- 17.30-18.00 **D.PONOMAREV**  
*(Univ. de Mons)*  
**Comments about Higher-Spin and Duality.  
Part II: Mixed-Symmetry Fields and Unfold-  
ing**
- 18.00-18.30 **M.VALENZUELA**  
*(Mons University)*  
**Fractional statistics of the Prokushkin-Vasiliev  
higher spin field equations**

## Wednesday, May 30

- 11.00-11.30 **D.LÜST**  
*(Humboldt Univ., Berlin)*  
**Strings and (Non)-Geometry**
- 11.30-12.00 **E.BERGSHOEFF**  
*(Univ. of Groningen)*  
**A New Road to Massive Gravity?**
- 12.00-12.30 **P.FRE**  
*(Univ. of Turin, & INFN, Turin)*  
**Extremal Black Holes, Nilpotent Orbits and  
the Tits Satake Projection**
- 12.30-13.00 **B.ZUPNIK**  
*(JINR, Dubna)*  
**Superfield Methods in Three-Dimensional Su-  
pergravity**

# Thursday, May 31

- 11.00-11.30     **A.TSEYTLIN**  
(*Imperial College, London*)  
**Short Strings and Structure of Quantum AdS<sub>5</sub> x S<sup>5</sup> Spectrum**
- 11.30-12.00     **K.ZAREMBO**  
(*Nordita, Stockholm*)  
**Exact Results for Wilson Loops in Supersymmetric Theories**
- 12.00-12.30     **G.ARUTYUNOV**  
(*Utrecht Univ.*)  
**Towards q-deformations of the Mirror TBA**
- 12.30-13.00     **H.SAMTLEBEN**  
(*Univ. of Lyon*)  
**New Superconformal Models in Six Dimensions**
- 14.30-15.00     **H.VERLINDE**  
(*Princeton Univ.*)  
**Gravity from Instantons**
- 15.00-15.30     **T.McLOUGHLIN**  
(*Max Planck Inst. for Gravitational Phys., Golm*)  
**New Dualities for Three-Dimensional Supergravity**
- 15.30-16.00     **H.DORN**  
(*Humboldt Univ., Berlin*)  
**Wilson Loop Remainder Function for Null Polygons in the Limit of Self-Crossing**
- 16.00-16.30     **A.GORSKY**  
(*ITEP, Moscow*)  
**Surprises of  $\epsilon$  Deformed SYM Theory**

- 17.00-17.30 **R.MANVELYAN**  
*(Yerevan Physics Inst.)*  
**Radial Reduction and Cubic Interaction for Higher Spins in (A)dS Space**
- 17.30-18.00 **K.ALKALAEV**  
*(Lebedev Inst., Moscow)*  
**The Massless Hook Field and the AdS/CFT Correspondence**
- 18.00-18.30 **A.RESHETNYAK**  
*(Inst. of Strength Physics and Materials Science, Tomsk)*  
**General Unconstrained Gauge-Invariant Lagrangian Formulations for Arbitrary Mixed-Symmetry Higher Spin Fields**

## Friday, June 1

- 11.00-11.30 **M.GABERDIEL**  
*(ETH, Zurich)*  
**Minimal Model Holography**
- 11.30-12.00 **S.GIOMBI**  
*(Perimeter Inst., Waterloo)*  
**Chern-Simons Vector Models and Higher Spins**
- 12.00-12.30 **M.GRIGORIEV**  
*(Lebedev Inst., Moscow)*  
**Parent BRST Approach to Higher Spin Gauge Fields**
- 12.30-13.00 **A.SHARAPOV**  
*(Tomsk State University)*  
**Lagrange Anchor, Symmetries and Conservation Laws of Free Massless Fields**

- 14.30-15.00     **K.STELLE**  
*(Imperial College, London)*  
**Supergravity Divergences and Puzzles**
- 15.00-15.30     **E.IVANOV**  
*(JINR, Dubna)*  
**Supersymmetric Mechanics with Spin Multi-plets and Nahm Equations**
- 15.30-16.00     **YU.ZINOVIEV**  
*(IHEP, Protvino)*  
**On Massive Gravity and Bigravity in Three Dimensions**
- 16.00-16.30     **M.TARONNA**  
*(Scuola Normale Superiore and INFN, Pisa)*  
**Higher-Spin Interactions: Three-Point Functions and Beyond**

## Saturday, June 2

- 9.00- 9.30     **X.YIN**  
*(Harvard Univ., Cambridge)*  
**Symmetry Breaking in Higher Spin Holography**
- 9.30-10.00     **M.VASILIEV**  
*(Lebedev Inst., Moscow)*  
**Holography, Unfolding and Higher-Spin Theory**
- 10.00-10.30     **I.AREF'EVA**  
*(Steklov Inst., Moscow)*  
**Holographic Description of Quark-Gluon Plasma in Heavy-Ion Collisions**

# Quantum Field Theory

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Monday, May 28

- 11.00-11.30    **K.BERING**  
*(Masaryk Univ., Brno)*  
**A Triplectic Bi-Darboux Theorem and Para-Hypercomplex Geometry**
- 11.30-12.00    **P.LAVROV**  
*(Tomsk Pedagog.Univ.)*  
**Soft Breaking of BRST Symmetry in Field-Antifield Formalism**
- 12.00-12.30    **S.LYAKHOVICH**  
*(Tomsk Univ.)*  
**Lagrange Anchor and BRST Complex for General Gauge Systems**
- 12.30-13.00    **M.OLSHANETSKY**  
*(ITEP, Moscow)*  
**New Families of the Knizhnik-Zamolodchikov-Bernard Equations Related to WZW Models**
- 14.30-15.00    **V.KAZAKOV**  
*(Ecole Normale Supérieure & Univ. Paris VI)*  
**Discrete Integrable Dynamics for Exact Spectrum of Planar N=4 SYM Theory**
- 15.00-15.30    **L.BORK**  
*(ITEP, Moscow)*  
**Form Factors in N=4 Maximally Supersymmetric Yang-Mills Theory**
- 15.30-16.00    **I.SAMSONOV**  
*(Tomsk Polytech.Univ.)*  
**N=4 SYM Low-Energy Effective Action in N=3 and N=4 Harmonic Superspaces**

16.00-16.30 **A.SMILGA**  
(*Subatech, Univ. de Nantes*)  
**Witten Index in Supersymmetric 3d Chern-Simons-Yang-Mills Theory**

## Tuesday, May 29

11.00-11.30 **G.EFIMOV**  
(*JINR, Dubna*)  
**Unstable Oscillator and the Tachyon Field**

11.30-12.00 **M.SOLOVIEV**  
(*Lebedev Inst., Moscow*)  
**Reconstruction in Quantum Field Theory with a Fundamental Length**

12.00-12.30 **A.SEMIKHATOV**  
(*Lebedev Inst., Moscow*)  
**Braided Hopf Algebras as the Framework for Logarithmic Conformal Field Theories**

12.30-13.00 **A.GALAJINSKY**  
(*Tomsk Polytechnic Univ.*)  
**Near Horizon Black Holes in Diverse Dimensions and Integrable Models**

14.30-15.00 **A.RUKHADZE**  
(*General Physics Inst., Moscow*)  
**Minkowski's Tensor or Abraham's Tensor?**

15.00-15.30 **YU.MAKEENKO**  
(*ITEP, Moscow*)  
**Reparametrization Path Integral in AdS and the Schwinger Effect**

15.30-16.00 **M.MENSKY**  
(*Lebedev Inst., Moscow*)  
**Group-Theoretical Derivation of Path Integrals for Particles and "History-Strings"**

16.00-16.30

**V.MANKO**

*(Lebedev Inst., Moscow)*

**New Uncertainty Relations Found Due to Probability Representation of Quantum States and Recent Experiments Confirming These Relations**

## Friday, June 1

11.00-11.30

**B.OVRUT**

*(Univ. of Pennsylvania)*

**Phenomenological Heterotic Theory: Standard Models, the Renormalization Group and All That**

11.30-12.00

**L.CHEKHOV**

*(Steklov Inst., Moscow)*

**Calculating Quantum Liouville Theory Using Quantum Riemann Surfaces**

12.00-12.30

**I.GINZBURG**

*(Sobolev Inst. of Mathematics, Novosibirsk)*

**Charged Oscillator and Antioscillator in Magnetic field. Variation of Hidden Symmetries with Magnetic Field**

12.30-13.00

**S.LEBEDEV**

*(Surgut Univ.)*

**Spin Dependent Addition to the Mass of Relativistic Electron in QED with External Electric Field**

## Saturday, June 2

9.00- 9.30

**A.SLAVNOV**

*(Steklov Inst., Moscow)*

**Massless Limit of Nonabelian Higgs Model**



*9.30-10.00*

**I.VOLOVICH**

*(Steklov Inst., Moscow)*

**Time Irreversibility Problem and Functional  
Formulation of Classical and Quantum Theory**

*10.00-10.30*

**V.MUKHANOV**

*(Ludwig Maximilians Univ. of Munich)*

**Classical Dimensional Transmutation and  
Confinement**

# Quantum Gravity and Cosmology

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Monday, May 28

- 11.00-11.30     **M.SASAKI**  
*(Kyoto Univ.)*  
**Conformal Frame independence in Cosmology**
- 11.30-12.00     **P.BINETRUY**  
*(AstroParticle and Cosmology, Univ. Paris VII)*  
**About Dark Energy**
- 12.00-12.30     **V.FROLOV**  
*(Univ. of Alberta)*  
**Spinoptics in a Curved Spacetime**
- 12.30-13.00     **D.GALTSOV**  
*(Moscow Univ.)*  
**Bremsstrahlung in Transplanckian Collisions**
- 14.30-15.00     **R.WOODARD**  
*(Univ. of Florida)*  
**Graviton Corrections to Maxwell's Equations**
- 15.00-15.30     **C.KIEFER**  
*(Univ. of Cologne)*  
**Can Effects of Quantum Gravity be Observed  
in the Cosmic Microwave Background?**
- 15.30-16.00     **A.KAMENSHCHIK**  
*(Univ. of Bologna & Landau Inst., Chernogolovka)*  
**Soft and "Hard" Singularities in Classical and  
Quantum Cosmology**

# Tuesday, May 29

- 11.00-11.30 **C.DEFFAYET**  
(*AstroParticle&Cosmology Lab., Paris*)  
**Some Recent Results about Massive Gravity**
- 11.30-12.00 **S.SIBIRYAKOV**  
(*Inst. for Nuclear Research, Moscow*)  
**Constraining Deviations from Lorentz Invariance on the Dark Sector**
- 12.00-12.30 **D.LEVKOV**  
(*Inst. for Nuclear Research, Moscow*)  
**Semiclassical Transitions with Black Hole in the Intermediate State**
- 12.30-13.00 **E.BABICHEV**  
(*Univ. of Paris XI & Paris Diderot Univ. VII*)  
**Some Solutions in Galileon Theory**
- 14.30-15.00 **A.FILIPPOV**  
(*JINR, Dubna*)  
**Cosmological and Static States in Generalized Affine Theories of Gravity: Analytic and Asymptotic Solutions, Ideas on Global Properties**
- 15.00-15.30 **M.LIBANOV**  
(*Inst. for Nuclear Research, Moscow*)  
**Conformal Mechanisms for Generation of Cosmological Density Perturbations**
- 15.30-16.00 **M.KATANAEV**  
(*Steklov Inst., Moscow*)  
**Three-Dimensional Gravity, Dislocations, and the Riemann-Hilbert Problem**
- 16.00-16.30 **A.ZELNIKOV**  
(*Univ. of Alberta*)  
**Classical Self-Energy of Charges near Higher-Dimensional Black Holes and Anomalies**

- 17.00-17.30 **S.VERNOV**  
*(Skobeltsyn Inst. of Nuclear Physics, Moscow Univ.)*  
**Analysis of Scalar Perturbations in Nonlocal  
Cosmological Models**
- 17.30-18.00 **S.P.MIAO**  
*(Utrecht Univ.)*  
**Issues Concerning Loop Corrections to the  
Primordial Power Spectra**
- 18.00-18.30 **L.MODESTO**  
*(Perimeter Inst., Waterloo)*  
**Super-Renormalizable          Multidimensional  
Quantum Gravity**
- 18.30-19.00 **E.POZDEEVA**  
*(Skobeltsyn Inst. of Nuclear Physics, Moscow Univ.)*  
**Stability of de Sitter Solutions in Modified  
Gravity**

## Wednesday, May 30

- 11.00-11.30 **V.BEREZIN**  
*(Inst. for Nuclear Research, Moscow)*  
**On Classical Analogs of Quantum Black Holes**
- 11.30-12.00 **M.VOLKOV**  
*(Univ. of Tours)*  
**Hairy Black Holes and Cosmologies in the  
Ghost-Free Massive Gravity**
- 12.00-12.30 **V.DOKUCHAEV**  
*(Inst. for Nuclear Research, Moscow)*  
**Voyage Inside Black Hole**
- 12.30-13.00 **O.ZASLAVSKII**  
*(Kharkov National Univ.)*  
**Acceleration of Particles by Black Holes**

# Thursday, May 31

- 11.00-11.30     **A.VILENKIN**  
*(Tufts Univ., Medford)*  
**Did the Universe have a Beginning?**
- 11.30-12.00     **A.BARVINSKY**  
*(Lebedev Inst., Moscow)*  
**Nonlocal Ghost-free Gravity Theory and Dark Energy**
- 12.00-12.30     **A.VIKMAN**  
*(New York Univ.)*  
**G-Bounce**
- 12.30-13.00     **D.FURSAEV**  
*(JINR, Dubna)*  
**Renyi Entropy in CFT**
- 14.30-15.00     **K.MAEDA**  
*(Waseda Univ., Tokyo)*  
**Accelerating Universe in Effective String Theory**
- 15.00-15.30     **D.POLARSKI**  
*(Université Montpellier 2, France)*  
**Dark Energy**
- 15.30-16.00     **B.ALTSHULER**  
*(Lebedev Inst., Moscow)*  
**New Glance at the Special Role of (3+1)-Dimensional De Sitter Space-Time**
- 16.00-16.30     **D.NESTEROV**  
*(Lebedev Inst., Moscow)*  
**Monodromies and Functional Determinants in the CFT Driven Quantum Cosmology**

# Friday, June 1

- 11.00-11.30     **B.-L.HU**  
(*Univ. of Maryland*)  
**Stochastic Gravity: Stress Tensor Fluctuations in (anti) de Sitter Spacetimes**
- 11.30-12.00     **T.TANAKA**  
(*Yukawa Inst., Kyoto Univ.*)  
**Infrared Divergence in Cosmological Perturbation Theory**
- 12.00-12.30     **M.IOFA**  
(*Skobeltsyn Inst. of Nuclear Physics, Moscow Univ.*)  
**Graviton Emission and Nucleosynthesis in Warped Cosmological Models**
- 14.30-15.00     **B.WHITING**  
(*Univ. of Florida*)  
**Stochastic Gravitational Wave Background Results from LIGOs Long-Baseline Interferometers**
- 15.00-15.30     **V.VANYASHIN**  
(*Dnepropetrovsk Univ.*)  
**Cold Dark Matter Cannot Comprise Relic Axions**
- 15.30-16.00     **A.TOPORENSKY**  
(*Sternberg Inst., Moscow Univ.*)  
**Stable Superinflating Solutions in f(R) Gravity**
- 16.00-16.30     **C.STEINWACHS**  
(*Univ. of Cologne*)  
**Non-Minimal Higgs Inflation and Frame Dependence in Cosmology**

# Saturday, June 2

9.00- 9.30

**D.GORBUNOV**

*(Inst. for Nuclear Research, Moscow)*

**Minimal Extensions of the Standard Model  
and Tests of the Great Desert at LHC**

9.30-10.00

**F.BEZRUKOV**

*(Ludwig Maximilians Univ. of Munich)*

**Consistency and Predictions from the Higgs  
Inflation**

10.00-10.30

**A.NIKISHOV**

*(Lebedev Inst., Moscow)*

**Gravitational Radiation from Masses in a Ke-  
plerian Orbit**

# High-Energy Physics

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## Monday, May 28

- 11.00-11.30     **V.GAVRILOV**  
(*ITEP, Moscow*)  
**Recent results from CMS Experiment at LHC**
- 11.30-12.00     **A.MINAENKO**  
(*IHEP, Protvino*)  
**Search for Standard Model Higgs Boson in the ATLAS Experiment**
- 12.00-12.30     **A.SORIN**  
(*JINR, Dubna*)  
**Status of the NICA Project at JINR**
- 12.30-13.00     **N.BROOK**  
(*Univ. of Bristol*)  
**Particle Production and Minimum Bias Distributions at the Large Hadron Collider**
- 14.30-15.00     **B.SINHA**  
(*Variable Energy Cyclotron Centre, Kolkata*)  
**The Enigma of the Perfect Fluid, Quark Gluon Plasma, AdS/CFT Limit of Viscosity per Entropy**
- 15.00-15.30     **I.DREMIN**  
(*Lebedev Inst., Moscow*)  
**Elastic Scattering of Hadrons and the LHC Data**
- 15.30-16.00     **A.SNIGIREV**  
(*Skobeltsyn Inst. of Nuclear Physics, Moscow Univ.*)  
**Hard Double Parton Scattering in Hadronic Collisions**



16.00-16.30    **O.TERYAEV**  
(*JINR, Dubna*)  
**Axial Anomaly and Hadron Structure**

## Wednesday, May 30

11.00-11.30    **M.VYSOTSKY**  
(*ITEP, Moscow*)  
**CP Violation in D-Meson Decays and the Fourth Generation**

11.30-12.00    **D.DIAKONOV**  
(*S.-Petersburg Nuclear Physics Inst.*)  
**Fundamental Spinor Quantum Gravity Regularized on a Lattice**

12.00-12.30    **O.ANDREEV**  
(*Ludwig Maximilians Univ. of Munich & Landau Inst., Chernogolovka*)  
**Heavy Quark Potentials via Gauge/String Duality**

12.30-13.00    **S.GODUNOV**  
(*ITEP, Moscow*)  
**Critical Nucleus Charge in a Superstrong Magnetic Field: Effect of Screening**

## Thursday, May 31

11.00-11.30    **B.ZAKHAROV**  
(*Landau Inst., Chernogolovka*)  
**Can the Glasma Affect Jet Quenching in AA-collisions at RHIC and LHC?**

11.30-12.00    **E.-M.ILGENFRITZ**  
(*JINR, Dubna*)  
**Influence of Magnetic Field on the Chiral/Deconfining Phase Transition**

- 12.00-12.30 **A.LEONIDOV**  
*(Lebedev Inst., Moscow)*  
**Turbulent Instabilities in Quark-Gluon Plasma**
- 12.30-13.00 **V.FILINOV**  
*(Joint Inst. for High Temperatures, Moscow)*  
**Quantum Simulation of Thermodynamic and Transport Properties of QuarkGluon Plasma**
- 14.30-15.00 **K.FUKUSHIMA**  
*(Keio Univ.)*  
**Quest for the QCD Phase Diagram in Extreme Environments**
- 15.00-15.30 **V.SHEVCHENKO**  
*(Kurchatov inst., Moscow)*  
**Towards Quantum Theory of Chiral Magnetic Effect**
- 15.30-16.00 **A.ANDRIANOV**  
*(Univ. of Barcelona & S.-Petersburg Univ.)*  
**Flying of Vector Particles from a Parity Breaking (Chern-Simons) Medium to Vacuum and Back**
- 16.00-16.30 **V.NECHITAILO**  
*(Lebedev Inst., Moscow)*  
**Independent Pair Parton Interactions Model and Multiplicity Distributions at LHC**
- 17.00-17.30 **V.GRICHINE**  
*(Lebedev Inst., Moscow)*  
**Integral Hadron-Nucleus and Nucleus-Nucleus Cross Sections in the Glauber-Sitenko-Gribov Framework**
- 17.30-18.00 **M.ALFIMOV**  
*(Moscow Inst. of Physics and Technology)*  
**Quantum Cherenkov Glue**

18.00-18.30

**G.SHAROV**

*(Tver Univ.)*

**String Models, Stability and Width of Hadron  
States**

# Condensed Matter Physics

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Monday, May 28

- 11.00-11.30    **I.Božović**  
(Brookhaven National Lab.)  
**Solving the High-Tc Superconductivity Puzzle  
– One Atomic Layer at a Time**
- 11.30-12.00    **I.MAZIN**  
(Naval Research Lab.)  
**Where to Look for New Superconductors?**
- 12.00-12.30    **O.DOLGOV**  
(Max Planck Inst. for Solid State Research,  
Stuttgart)  
**Is there a Fundamental Limit on the Critical  
Temperature?**
- 12.30-13.00    **M.KULIĆ**  
(Goethe Univ., Frankfurt)  
**Pairing in Cuprates and Fe-Based Supercon-  
ductors - is it so Simple as it is Claimed?**
- 14.30-15.00    **D.KHOMSKII**  
(Univ. of Cologne)  
**Coupled Electricity and Magnetism in Fru-  
strated Mott insulators: Spontaneous Cur-  
rents, Dipoles and Monopoles**
- 15.00-15.30    **S.OVCHINNIKOV**  
(Inst. of Physics, Krasnoyarsk)  
**Temperature Dependent Electronic Structure  
of Mott Insulators with Singlet Spin State**
- 15.30-16.00    **D.VAN DER MAREL**  
(Univ. of Geneva)  
**Fermi-Liquid Behavior of Strongly Renormal-  
ized Electrons in Transition Metal Oxydes**

16.00-16.30 **S.SAVRASOV**  
(Univ. of California, Davi)  
**Weyl Metal States and Surface Fermi Arcs in Iridates**

## Tuesday, May 29

11.00-11.30 **M.FEIGELMAN**  
(Landau Inst., Chernogolovka)  
**Superconductor-Insulator Transition, Energy Localization and Level Statistics**

11.30-12.00 **I.BURMISTROV**  
(Landau Inst., Chernogolovka)  
**Enhancement of the Critical Temperature of Superconductors by Anderson Localization**

12.00-12.30 **M.KAGAN**  
(Kapitza Inst., Moscow)  
**Superconductivity in Repulsive Fermi-Systems at Low Density**

12.30-13.00 **YU.KOPAEV**  
(Lebedev Inst., Moscow)  
**Symmetrization of Superconducting Coulomb Pairing Potential due to Electron-Phonon Interaction**

14.30-15.00 **L.PITAEVSKII**  
(Kapitza Inst., Moscow & Univ. of Trento)  
**Ultracold Atoms as a New Tool in Condensed Matter Physics**

15.00-15.30 **S.SHARAPOV**  
(Bogolyubov Inst. for Theoretical Physics, Kiev)  
**Strong Enhancement of the Peltier-Seebeck Effect in Gapped Graphene**

15.30-16.00 **V.VOLKOV**  
(*Inst. of Radioengineering and Electronics, Moscow*)  
**Aharonov-Bohm Oscillations of Resistance of Perforated Graphene**

16.00-16.25 **V.PUDALOV**  
(*Lebedev Inst., Moscow*)  
**Spin-droplet State of Interacting Two-dimensional System**

## Wednesday, May 30

11.00-11.30 **A.CHAPLIK**  
(*Inst. of Semiconductor Physics, Novosibirsk*)  
**Electrostatic Screening and Friedel Oscillations in Nanostructures**

11.30-12.00 **R.SURIS**  
(*Ioffe Inst., S.-Petersburg*)  
**Nanostructures as the Instrument for the Materialization of the Problems from the Textbook on Quantum Mechanics**

12.00-12.30 **A.IOSELEVICH**  
(*Landau Inst., Chernogolovka*)  
**TBA**

12.30-13.00 **P.ARSEEV**  
(*Lebedev Inst., Moscow*)  
**TBA**

## Thursday, May 31

11.00-11.30 **A.LICHTENSTEIN**  
(*Hamburg Univ.*)  
**Electronic Structure, Non-Local Correlation Effects and Superconductivity in Cuprates**

- 11.30-12.00 **V.ANISIMOV**  
(*Inst. of Metallophysics, Ekaterinburg*)  
**Density Functional and Dynamical**
- 12.00-12.30 **M.SADOVSKII**  
(*Inst. of Electrophysics, Ekaterinburg*)  
**Generalized Dynamical Mean-Field Theory  
for Strongly Correlated Systems**
- 12.30-13.00 **A.RUBTSOV**  
(*Moscow Univ.*)  
**Dual Bosons: a Description of Collective Phenomena in Correlated Systems**
- 14.30-15.00 **A.ZAIKIN**  
(*Karlsruhe Inst. of Technology*)  
**Coulomb Blockade and Antiblockade of Non-Local Electron Transport in Metallic Conductors**
- 15.00-15.30 **A.SEMENOV**  
(*Lebedev Inst., Moscow*)  
**Dephasing of Cooper Pairs and Subgap Electron Transport in Superconducting Hybrids**
- 15.30-16.00 **A.MELNIKOV**  
(*Inst. for Physics of Microstructures, N.Novgorod*)  
**Topological Transitions in Electronic Spectra of Vortex Clusters in Type-II Superconductors**
- 16.00-16.30 **A.KOROTKOV**  
(*Univ. of California, Riverside*)  
**Probing “Inside” Quantum Collapse with Solid-State Qubits**

## Friday, June 1

- 11.00-11.30 **A.ROSCH**  
(*Univ. of Cologne*)  
**Emergent Electrodynamics of Skyrmionic Magnetic Whirls in Chiral Magnets**

- 11.30-12.00 **YU.LOZOVIK**  
*(Inst. of Spectroscopy, Troitsk)*  
**Collective Properties and Phases of Dirac  
Electrons in Topological Insulators**
- 12.00-12.30 **K.KIKOIN**  
*(Ben-Gurion Univ.)*  
**Kondo Effect in Terms of Gell-Mann Matrices**
- 12.30-13.00 **YU.USPENSII**  
*(Lebedev Inst., Moscow)*  
**Electronic Quasiparticle Spectrum in Semi-  
conductor Nano-Objects**



# Nonlinear Dynamics

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Tuesday, May 29

- 11.00-11.30     **V.KURDYUMOV**  
(*CIEMAT, Madrid*)  
**Rotating and Pulsating Premixed Flames in  
Narrow Channels with a Circular Cross-  
Section**
- 11.30-12.00     **V.GUBERNOV**  
(*Lebedev Inst., Moscow*)  
**Investigation of Combustion Wave Stability in  
Chain-Branching Models**
- 12.00-12.30     **A.STARIK**  
(*Central Inst. for Aeronautical Motor Industry,  
Moscow*)  
**Chain Reactions with Excited Molecules: Ap-  
plication to Novel Combustion Concepts**
- 12.30-13.00     **A.STARIK**  
(*Central Inst. for Aeronautical Motor Industry,  
Moscow*)  
**Chain Reactions with Excited Molecules: Ap-  
plication to Novel Combustion Concepts**
- 14.30-15.00     **V.BYKOV**  
(*Karlsruhe Inst. of Technology*)  
**Manifolds Based Model Reduction for React-  
ing Flow Systems**
- 15.00-15.30     **N.SMIRNOV**  
(*Moscow Univ.*)  
**Non-Linear Waves' Evolution in Meta-Stable  
Media**

- 15.30-16.00 **W.EBELING**  
*(Humboldt Univ., Berlin)*  
**Coherent Electron Transport Mediated by Solitonic Excitations**
- 16.00-16.30 **YU.ROMANOVSKY**  
*(Moscow Univ.)*  
**Mathematical Models of Molecular Motors**
- 17.00-17.30 **E.KUZNETSOV**  
*(Lebedev Inst., Moscow)*  
**Collapse in Hydrodynamics and the Kolmogorov Spectrum**

## Thursday, May 31

- 11.00-11.30 **A.PIKOVSKY**  
*(Univ. of Potsdam)*  
**Chaotic Destruction of Anderson Localization in Nonlinear Lattices**
- 11.30-12.00 **E.VOLKOV**  
*(Lebedev Inst., Moscow)*  
**Nonlinear Physics in the Study of Synthetic Genetic Oscillators**
- 12.00-12.30 **I.ARONSON**  
*(Argonne National Lab.)*  
**The Ginzburg-Landau Equation and Contemporary Non-Equilibrium Physics**
- 12.30-13.00 **M.MONASTYRSKY**  
*(ITEP, Moscow)*  
**Phase Transitions in Membranes of High Genus**
- 14.30-15.00 **V.ZYKOV**  
*(Max Plank Institut for Dynamics and Self-Organization, Goettingen)*  
**Wave Patterns Selection in Excitable Media**

- 15.00-15.30 **A.PANFILOV**  
*(Ghent Univ.)*  
**Anatomical Modeling of Electrical and Mechanical Function of the Heart**
- 15.30-16.00 **H.VERSHELDE**  
*(Ghent Univ.)*  
**Geometric Structures in Anisotropic Excitable Media**
- 16.00-16.30 **A.POLEZHAEV**  
*(Lebedev Inst., Moscow)*  
**Spatial-Temporal Patterns Arising in Active Media in the Vicinity of the Wave Bifurcation**

## Friday, June 1

- 11.00-11.30 **I.SOKOLOV**  
*(Humboldt Univ., Berlin)*  
**Nonergodicity and Inhomogeneity in Single Particle Tracking**
- 11.30-12.00 **S.FEDOTOV**  
*(Univ. of Manchester)*  
**Anomalous Transport and Nonlinear Fractional Subdiffusive Equations**
- 12.00-12.30 **A.LEONIDOV**  
*(Lebedev Inst., Moscow)*  
**On Kinetic Theory of Energy Losses in Randomly Heterogeneous Medium**
- 12.30-13.00 **A.CHECKKIN**  
*(Inst. for Physics and Astronomy, Univ. of Potsdam)*  
**First Passage Processes for the Two Paradigmatic Models of Anomalous Diffusions**

- 15.00-15.30 **V.KLYATSKIN**  
*(Obukhov Inst. of Atmospheric Phys., Moscow)*  
**Stochastic Dynamo in Random Acoustic  
Fields**
- 15.30-16.00 **V.SIROTA**  
*(Lebedev Inst., Moscow)*  
**Vortex Filaments and Velocity Statistics in  
Hydrodynamic Turbulence**
- 16.00-16.30 **E.RUMANOV**  
*(Inst. of Structural Macrokinetics, Chernogolovka)*  
**Critical Chaos**