**Preliminary Timetable (changes are possible)**

**November 8**

**Moscow time**

* **Welcome address 10:15-10:30**
* **Morning session**

“**New Results in Hadron Spectroscopy** **(light quarks)“** **10:30–14:00**

**Chairperson** Sergey Sadovsky (Logunov IHEP, NRC KI)

1. Andrey Sarantsev (NRC Kurchatov Institute, PNPI) 10:30-11:00

***Recent Progress in Partial-Wave Analysis***

1. Eberhard Klempt  (University of Bonn) 11:00-11:30

***The Scalar and Tensor Glueball in Production and Decay***

1. Alex Keshavarzi (University of Manchester) 11:30 -12:00

***Muon g-2: hadronic contributions***

1. José Ramon Peláez (Universidad Complutense de Madrid) 12:00-12:30

***Determination of Light Scalar Meson Properties from Dispersive and Analytic Methods Applied to Meson-Meson Scattering***

1. Constantia Alexandrou (University of Cyprus) 12:30-13:00

***Nucleon Axial Form Factors from Lattice QCD***

1. **Discussion** 13:00-14:00

**Discussion leader** Eberhard Klempt (University of Bonn)

**Moscow time**

* **Evening session**

“**Quark-Gluon Matter at Finite Densities and Temperatures**” **15:30-19:30**

**Chairperson** Roman Zhokhov (IZMIRAN Troitsk)

1. Anton Andronic (Westfälischen Wilhelms-Universität Münster)  **15:30-16:00**

***Hadron production on heavy-ion and pp collisions at the LHC with ALICE***

2. Giorgio Torrieri (State University of Campinas, Brasil)  **16:00-16:30**

***Making sense of Hydrodynamics with 50 particles.***

3. Fabian Rennecke (Justus Liebig University Giessen)  **16:30-17:00**

***Moat Regimes in QCD and their Signatures in Heavy-Ion Collisions***

4.Victor Braguta (JINR)  **17:00-17:30**

***Electromagnetic conductivity of quark-gluon plasma at non-zero baryon density***

5. [Owe Philipsen](https://arxiv.org/search/hep-lat?searchtype=author&query=Philipsen%2C+O) (Goethe-Universität Frankfurt am Main) **17:30 –18:00**

***The chiral phase transition for different numbers of quark flavours***

6. Andreas Schmitt (University of Southampton)  **18:00-18:30**

***Holographic nuclear matter with isospin asymmetry***

### 

### 7. Rajeev Singh (Institute of Nuclear Physics, Polish Academy of Sciences) 18:30–18:45

### *Relativistic formulation of spin hydrodynamics framework based on GLW spin and energy-momentum tensors*

**Discussion** **19:00-20:00**

**Discussion leader** Giorgio Torrieri (State University of Campinas, Brazil)

**November 9**

**Moscow time**

* **Morning session**

“**New Results in Hadron Spectroscopy (heavy quarks)**” **10:00 – 14:15**

**Chairperson**  Alexander Berezhnoy (Skobeltsyn Institute of Nuclear Physics)

1. Alexey Nefediev (Lebedev Physical Institute of RAS) 10:00–10:30

***Double-J/psi system in the spotlight of recent LHCb data***

1. Abhishek Mohapatra (TU München) 10:30 –11:00

***Inclusive Decays of Heavy Quark Hybrids***

1. Marc Wagner (Goethe University Frankfurt) 11:00–11:30

***Masses and Structure of Exotic Heavy-Quark Mesons from Lattice QCD***

***Static Potentials***

1. Saša Prelovšek ( Ljubljana Univ.& [Regensburg](https://inspirehep.net/institutions/903753) Univ) 11:30–12:00

***Spectroscopy of exotic mesons from lattice simulations***

**Break 12.00-12.15**

1. Ilya Belov (SINP, Lomonosov MSU)  12:15–12:45

***Production of D-wave states of  bc  quarkonium at the LHC***

1. Vitaly Vorobyev (LHCb ) 12:45–13:15

***TBA***

1. **Discussion** 13:15–14:15

**Discussion leader** Antonio Vairo (Physik-Dep., Technische Univ. München)

**Moscow time**

* **Evening Session**

“**Non-perturbative Methods for Soft Hadron Scattering**” **15:30 – 19:00**

**Chairperson** Anton Godizov (Logunov IHEP NRC KI)

1. Christophe Royon (University of Kansas) 15:30-16:00

On behalf of the D0 and TOTEM Collaborations.

***The odderon discovery by the D0 and TOTEm collaborations***

1. Oleg Selyugin (BLTP, JINR) 16:00-16:30

***Hadron potential at large distances and fine structure of the diffraction peak at 13 TeV***

1. Maria Margherita Obertino (University of Torino and INFN) 16:30-17:00

***Study of central exclusive production with the CMS Precision Proton Spectrometer (PPS)***

1. Piotr Lebiedowicz ( Institute of Nuclear Physics PAN ) 17:00-17:30

***Central exclusive diffractive production of axial-vector f1 mesons in***

***proton - proton collisions***

1. Nicola Turini (University of Siena and INFN) 17:30 -18:00

***Prospect for new physics observation with the CMS Precision Proton Spectrometer (PPS)***

1. **Discussion** 18:00-19:00

**Discussion leader** Vladimir Petrov (Logunov IHEP NRC KI).

**November 10**

**Moscow time**

* **Morning session**

“**Lattice Simulation for Hadron Phenomenology**” **11:00 – 14:30**

**Chairperson** Atsushi Nakamura  (FEFU / Osaka Univ.)

1. Olaf Kaczmarek  (Bielefeld University) 11:00- 11:30

***Heavy quark spectral functions and charm diffusion***

1. Andrey Kotov (Forschungszentrum Jülich) 11:30- 12:00

***QCD phase transition for various number of flavours***

1. Nikolai Gerasimeniuk (Vladivostok University) 12:00-12:30

***Applying machine learning methods to prediction problems for lattice observables***

1. Johannes Weber (Humboldt-Universität zu Berlin) 12:30-13:00 ***Static quark-antiquark interactions at non-zero temperature from lattice QCD***

5. Harvey Meyer (Johannes Gutenberg University Mainz) 13:00-13:30

***A lattice QCD view of the hadronic contributions to the anomalous magnetic***

***moment of the muon***

6. **Discussion** 13:30-14:30

**Discussion leader** Maria Paola Lombardo (INFN)

**Moscow time**

* **Evening session**

“**Lattice Simulation for Hadron Phenomenology**” **15:30 – 19:00**

**Chairperson** Vitaly Bornyakov (Logunov IHEP NRC KI)

1. Gerrit Schierholz (DESY) 15:30-16:00

***Strong CP problem, neutron electric dipole moment, and the fate of axions***

1. Gunnar Bali (Universität Regensburg) 16:00-16:30

***The η/η ′ system and large-Nc ChPT: A Lattice QCD Study***

3. Daniel Nogradi (Eotvos University) 13:00-13:30 ***The gauge group and flavor number dependence of mV/fPS***

4. Roger Horsley (University of Edinburgh) 17:00-17:30

***Hadron matrix elements, lattice QCD and the Feynman-Hellmann approach***

5. Krzysztof Cichy (Adam Mickiewicz University) 17:30-18:00

***Recent progress in partonic structure of the nucleon from lattice QCD***

6. **Discussion** 18:00-19:00

**Discussion leader** Gerrit Schierholz   (DESY)

**November 11**

**Moscow time**

* **Morning session**

“**Progress in the Confinement Problem**” **11:00 – 14:30**

**Chairperson** Vitaly Bornyakov (Logunov IHEP, NRC KI)

1. Kazue Matsuyama  (San Francisco State University) 11:00-11:30

***Excited States of Isolated Fermions in the Higgs phase of gauge Higgs theories***

1. Derek Leinweber (CSSM, University of Adelaide) 11:30 -12:00

***Centre Vortex Structure of QCD-Vacuum Fields and Confinement***

1. Tsuneo Suzuki (Research Center for Nucl. Phys., Osaka Univ.) 12:00 -12:30

***Abelian monopoles of the Dirac type and color confinement in QCD***

1. Massimo D'Elia  (University of Pisa and INFN) 12:30-13:00

***Thermal monopoles in full QCD***

1. Kei-Ichi Kondo (Chiba University) 13:00-13:30

***Confinement, mass gap and gauge symmetry in the Yang-Mills theory***

1. **Discussion** 13:30-14:30

**Discussion leader** Jeff Greensite (San Francisco State University)

**Moscow time**

* **Evening session**

**“ Rigorous Results in Gauge QFT**” **15:30 – 19.00**

**Chairperson** Alexandre Kisselev (Logunov IHEP, NRC KI)

1. Yui Hayashi (Chiba University) 15:30-16:00

***Rigorous reconstruction of gluon propagator in the presence of complex singularities***

1. Gernot Eichmann (LIP & IST Lisboa) 16:00-16:30

***Studying mass generation in Landau-gauge Yang-Mills theory***

1. Avner Karasik (Cambridge U., DAMTP) 16:30-17:00

***Anomalies for anomalous symmetries***

1. Erich Poppitz (Toronto University) 17:00-17:30

***The mixed 0-form/1-form anomaly in Hilbert space: pouring new wine into old bottles***

1. Robert Shrock ( Stony Brook University) 17:30-18:00

***Some Recent Results on Renormalization-Group Properties of Quantum***

***Field Theories***

1. **Discussion** 18:00-19:00 **Discussion leader** Robert Shrock ( Stony Brook University)

**November 12**

**Moscow time**

* **Morning session**

“**Quark-Gluon Matter at Finite Densities and Temperatures**” **10:00 – 13:30**

**Chairperson** Roman Zhokhov (IZMIRAN Troitsk)

1. Pavel Buividovich (University of Liverpool)  **10:00-10:30**  ***Chiral separation effect and Kondo effect in finite-density SU(2) gauge theory with dynamical fermions***
2. Yuki Fujimoto (The University of Tokyo) **10:30-11:00**

***Deconfining Phase Boundary of Rapidly Rotating Hot and Dense Matter and Analysis of Moment of Inertia***

1. Artem Roenko (JINR)  **11:00-11:30**

***Influence of relativistic rotation on the confinement-deconfinement transition***

***within lattice simulation***

1. Yi Yin (Quark Matter Research Center, Institute of Modern Physics, Chinese Academy of Sciences, Lanzhou)  **11:30-12:00**

***Spin-momentum correlation in hot and dense QCD matter***

1. Johannes Weber (Humboldt-Universität zu Berlin)  **12:00-12:30**

***Jet transport coefficient*  *in lattice QCD***

6. **Discussion** 12:30-13:30

**Discussion leader** Pavel Buividovich (University of Liverpool)

**Moscow time**

* **Evening session**

“**Chiral Symmetry Breaking in Hadron Physics**” **15:30 – 19.00**

**Chairperson** Roman Rogalyov (Logunov IHEP NRC KI)

1. Ruslan Abramchuk (ITEP, Moscow) 15:30 -16:00

***The Role of Confinement in the Chiral Symmetry Breaking***

1. Juan Torres-Rincon (Goethe University Frankfurt) 16:00-16:30

***Chiral symmetry restoration with three chiral partners***

1. Evgeny Epelbaum (Ruhr University Bochum) 16:30-17:00

***Nuclear Forces from Chiral Effective Field Theories***

1. Marc Catillo ([Zurich, ETH](https://inspirehep.net/institutions/903369)) 17:00-17:30

***Chiral Spin Symmetry and Confinement in QCD***

1. Dean Lee (Michigan State University) 17:30-18:00

***Lattice Simulations in Chiral Effective Field Theory***

1. **Discussion** 18:00-19:00

**Discussion leader**   Evgeny Epelbaum (Ruhr-Universitaet Bochum)

* **Closing address.**

**Wishes to discussion leaders**

* **It is assumed that each session will end with a general discussion (near one hour).**
* **The discussion is led by the discussion leader.**
* **The first part is assumed to be devoted to additional questions which bear a conceptual character.**

**It is meant that during the talk time only technical short questions not bearing a conceptual character are admitted. This is regulated by the chairperson.**

* **In the second part the discussion leader is asked to give a brief summary of the session's reports and a brief description of the most important unresolved problems related to the topic of the session.**
* **The allocation of time for discussion and summary is left to the discretion of the discussion leader.**

**Wishes to speakers**

* **As one can see from the program, our Workshop concerns various fields sometimes very different from each other, both conceptually and in technical terminology.**
* **That is why we would like to avoid excessive diversification and to try to preserve to a certain extent the unity of the high energy physics community.**
* **In this regard, we would like to ask all speakers, if possible, to kindly avoid, if possible, details that are understandable only to a narrow circle of deeply involved experts and to make the presentation simpler and clearer (thus more interesting!) to a wider circle of participants.**
* **We also believe that it would be of great importance to give, at least in a concise way, the conceptual motivation of your subject.**

***We are aware that this task can be rather difficult, so in no way the above wishes are mandatory and every speaker is, certainly, free to deliver her/his talk according to her/his own desire and convenience.***