*Lattice and Functional Techniques for Exploration of Phase Structure and Transport Properties in Quantum Chromodynamics*

# Monday, 10 July

<div align="right">**BLTP, auditorium on 2d floor**</div>

| 9:30 Registration (BLTP, 2d floor, Registration office) | | |
|---|---|---|
| **Chairman: B. J. Schaefer** | | |
| **10:00 – 10:40** | A. Nakamura | QCD phase structure and heavy ion collisions (I) |
| **10:40 – 11:20** | H. Iida | Meson screening masses at high temperatures and densities |
| **11:20 – 11:40** | **Coffee break** | |
| **Chairman: E.-M. Ilgenfritz** | | |
| **11:40 – 12:20** | P. Gunkel | Quarks and hadrons at finite chemical potential |
| **12:20 – 13:00** | V. Braguta | Confinement-deconf. trans. in dense SU(2) QCD (I) |
| **13:00 – 14:30** | **Lunch** | |
| **Chairman: V. Braguta** | | |
| **14:30 – 15:10** | B.J. Schaefer | Finite-volume effects on the QCD phase structure |
| **15:10 – 15:50** | A. Rothkopf | In-medium heavy quarkonium spectral properties ... |
| **15:50 – 16:10** | **Coffee break** | |
| **16:10 – 16:50** | talk of L. Holicki and free discussion (Ilgenfritz convener) "Quark localization and spectral correlations in lattice QCD" (a project proposal) | |
| **17:00 – …** | **Welcome Party** | |

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# Tuesday, 11 July

**BLTP, auditorium on 2d floor**

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|---|---|---|
| **Chairman: S. Smolyansky** | | |
| **10:00 – 10:40** | M. d'Elia | Lattice QCD simulations with external backgrounds (I) |
| **10:40 – 11:20** | E.-M. Ilgenfritz | QCD thermodynamics with Nf=2 and 2+1+1: status |
| **11:20 – 11:40** | **Coffee break** | |
| **Chairman: M. D'Elia** | | |
| **11:40 – 12:20** | M.-P. Lombardo | Topology in hot QCD with dynamical charm and axion physics |
| **12:20 – 13:00** | R. Rogalyov | Gluon propagators at finite temp. and density |
| **13:00 – 14:30** | **Lunch** | |
| **Chairman: M. P. Lombardo** | | |
| **14:30 – 15:10** | V. Bornyakov | QCD at finite baryonic density us. imag. chem. Potential |
| **15:10 – 15:50** | P. Buividovich | Non-equilibrium responses of chiral plasmas |
| **15:50 – 16:10** | **Coffee break** | |
| **16:10 – 16:50** | free discussion Nakamura/Bornyakov (conveners) "Status and possibilities for lattice QCD with three colors at finite baryonic density" | |
| **16:50 – 17:30** | O. Ivanyitski (Kiev, presenting V. Sagun's talk) "Beyond the Van der Waals EoS of hadronic matter" | |

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## Wednesday, 12 July

**BLTP, auditorium on 2d floor**

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|---|---|---|
| **Chairman: H. Iida** | | |
| **10:00 – 10:40** | P. Buividovich | Quantum effects in real-time evolution of gauge theories |
| **10:40 – 11:20** | A. Kotov | Temperature dependence of bulk and shear viscosities |
| **11:20 – 11:40** | **Coffee break** | |
| **Chairman: P. Buividovich** | | |
| **11:40 – 12:20** | K. Bugaev | Phase transitions in finite systems: from signals ... (I) |
| **12:20 – 13:00** | J. Pawlowski | On the phase structure and dynamics of QCD (I) |
| **13:00 – 14:30** | **Lunch** | |
| **Chairman: K. Bugaev** | | |
| **14:30 – 15:10** | V. Braguta | Confinement-deconfinement transition in dense SU(2) QCD (II) |
| **15:10 – 15:50** | M. d'Elia | Lattice QCD simulations with external backgrounds (II) |
| **15:50 – 16:10** | **Coffee break** | |
| **16:10 – 16:50** | S. Nedelko | Properties of a statistical ensemble of almost everywhere homogeneous Abelian (anti)self-dual gluon fields |
| **16:50 – 17:30** | free discussion Lombardo/Ilgenfritz (conveners) "Future of thermal lattice QCD in Dubna" | |
| **19:00** | **Conference Dinner** | |

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# Thursday, 13 July

**BLTP, auditorium on 2d floor**

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|---|---|---|
| **Chairman: V. Bornyakov** | | |
| **10:00 – 10:40** | L. von Smekal | QCD-like theories at finite density (I) |
| **10:40 – 11:20** | K. Bugaev | Phase transitions in finite systems: from signals ..(II) |
| **11:20 – 11:40** | **Coffee break** | |
| **Chairman: L. von Smekal** | | |
| **11:40 – 12:20** | A. Rothkopf | In-medium Landau gauge gluon spectral functions |
| **12:20 – 13:00** | A. Nakamura | QCD phase structure and heavy ion collisions (II) |
| **13:00 – 14:30** | **Lunch** | |
| **Chairman: G. Zinovjev** | | |
| **14:30 – 15:10** | O. Ivanytskyi | Geometr. clusterization and phase trans. in SU(2) gluodynamics |
| **15:10 – 15:50** | free discussion Bugaev/Zinovjev (conveners) "Modeling heavy ion collisions with different time scales" | |
| **15:50 – 16:10** | **Coffee break** | |
| **16:10 –16:50** | free discussion Braguta/von Smekal (conveners) "What can we learn from simulations of QCD-like theories (which have no sign problem)?" | |
| **17:00 – 18:00** | **Excursion to NICA** | |

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# Friday, 14 July

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|---|---|---|
| **Chairman: A. Nakamura** | | |
| **10:00 – 10:40** | J. Pawlowski | On the phase structure and dynamics of QCD (II) |
| **10:40 – 11:20** | S. Smolyansky | Initial conditions to non-perturbative kinetic ... |
| **11:20 – 11:40** | **Coffee break** | |
| **Chairman: J. Pawlowski** | | |
| **11:40 – 12:20** | L. von Smekal | QCD-like theories at finite density (II) |
| **12:20 – 13:00** | M.-P. Lombardo | Lattice QCD for Beyond the Standard Model physics |
| **13:00 – 14:30** | **Lunch** | |
| **14:30 –** | **Discussions/Projects** | |