# The 33rd International Symposium on Lattice Field Theory (Lattice 2015)

# Tuesday, 14 July 2015

### Nonzero Temperature and Density - 401 (14:00 - 16:00)

### -Conveners: Owe Philipsen

| time  | [id] title   | presenter           |
|-------|--|---------------------|
|       | [248] The curvature of the chiral phase transition line at small values of the quark chemical potentials | Dr HEGDE, Prasad    |
| 14:20 | [269] The curvature of the crossover line in the (T, mu)-phase diagram of QCD                            | Ms GUENTHER, Jana   |
|       | [133] Curvature of the pseudocritical line in (2+1)-flavor QCD with HISQ fermions                        | Dr COSMAI, Leonardo |
| 15:00 | [264] Curvature of the QCD chiral peusdocritical line from analytic continuation                         | MESITI, Michele     |
| 15:20 | [318] Phase structure of Nf=3 QCD at finite temperature and density by Wilson-Clover fermions            | Dr TAKEDA, Shinji   |
| 15:40 | [111] Many flavor approach to study the critical point in finite density QCD                             | Mr IWAMI, Ryo       |

### Nonzero Temperature and Density - 401 (16:30 - 18:30)

### -Conveners: Sourendu Gupta

| time  | [id] title   | presenter               |
|-------|--|-------------------------|
| 16:30 | [280] Many flavor approach to study the nature of chiral phase transition of two-flavor QCD          | Dr YAMADA, Norikazu     |
| 16:50 | [234] The nature of the Roberge-Weiss Transition in N_f=2 QCD with Wilson Fermions on N_t=6 lattices | Mr CZABAN, Christopher  |
| 17:10 | [42] The \$N_f=2\$ chiral phase transition from imaginary chemical potential with Wilson Fermions    | Dr PINKE, Christopher   |
| 17:30 | [27] Analytic continuation of finite density QCD with heavy quarks in the strong coupling region     | Prof. YONEYAMA, Hiroshi |
| 17:50 | [26] Topological feature and phase diagram of QCD at complex chemical potential                      | Dr KASHIWA, Kouji       |
| 18:10 | [6] Finite-temperature phase transition of Nf=3 QCD with exact center symmetry                       | Prof. MISUMI, Tatsuhiro |

### Wednesday, 15 July 2015

### Nonzero Temperature and Density - 401 (14:00 - 16:00)

### -Conveners: Atsushi Nakamura

| time  | [id] title   | presenter            |
|-------|--|----------------------|
| 14:00 | [18] Exploring Complex-Langevin Methods for Finite-Density QCD   | SINCLAIR, d. k.      |
|       | [129] Towards the heavy dense QCD phase diagram using Complex Langevin simulations                             | Mr ATTANASIO, Felipe |
| 14:40 | [165] Insights into the heavy dense QCD phase diagram using Complex<br>Langevin simulations                    | Dr JAEGER, Benjamin  |
|       | [60] Testing a generalized cooling procedure in the complex Langevin simulation of chiral Random Matrix Theory | Dr NAGATA, Keitaro   |
| 15:20 | [200] Understanding the problem with logarithmic singularities in the complex Langevin method                  | Dr SHIMASAKI, Shinji |
| 15:40 | [341] Complex Langevin in low-dimensional QCD: the good and the not-so-good                                    | Dr BLOCH, Jacques    |

### Nonzero Temperature and Density - 401 (16:30 - 18:30)

#### -Conveners: Carleton DeTar

| time  | [id] title   | presenter                |
|-------|--|--------------------------|
| 16:30 | [276] Magnetic properties and deconfinement  | Mr MARITI, Marco         |
| 16:50 | [314] Towards the continuum limit of the critical endline of finite temperature QCD                | Dr NAKAMURA, Yoshifumi   |
|       | [275] Chiral phase transition of \$N_f\$=3 and 2+1 QCD at vanishing baryon chemical potential      | Prof. DING, Heng-Tong    |
|       | [174] Thermodynamics and reference scale of SU(3) gauge theory from gradient flow on fine lattices | Prof. KITAZAWA, Masakiyo |
| 17:50 | [115] Polyakov loop renormalization with gradient flow   | Mr SCHADLER, Hans-Peter  |
| 18:10 | [254] Pure SU(3) Topological Susceptibility at Finite Temperature with the Wilson Flow             | Dr MAGES, Simon          |

# Thursday, 16 July 2015

### Nonzero Temperature and Density - 401 (08:30 - 10:10)

### -Conveners: Akira Ohnishi

| time  | [id] title  | presenter               |
|-------|---|-------------------------|
|       | [195] Study of high density phase transition in lattice QCD with canonical approach                                       | Prof. TANIGUCHI, Yusuke |
|       | [30] Exploring finite density QCD phase transition with canonical approach -<br>Power of multiple precision computation - | Mr OKA, Shotaro         |
| 09:10 | [14] Validity range of canonical approach to finite density QCD   | Mr FUKUDA, Ryutaro      |
|       | [57] Calculation of high-order cumulants with canonical ensemble method in lattice QCD                                    | Mr SUZUKI, Asobu        |
| 09:50 | [327] Aspects of topological actions on the lattice   | DE FORCRAND, Philippe   |

### Nonzero Temperature and Density - 401 (10:40 - 12:00)

### -Conveners: Heng-Tong DING

| time  | [id] title   | presenter                 |
|-------|--|---------------------------|
|       | [283] Diagrammatic Monte Carlo simulations of staggered fermions at finite coupling  | VAIRINHOS, Helvio         |
|       | [309] Lattice simulation of the SU(2)-chiral model at zero and non-zero pion density | Mr RINDLISBACHER, Tobias  |
| 11:20 | [342] Heavy and dense QCD from an effective lattice theory                           | PHILIPSEN, Owe            |
| 11:40 | [62] Analytic computations of an effective lattice theory for heavy quarks           | Mr GLESAAEN, Jonas Rylund |

# Friday, 17 July 2015

### Nonzero Temperature and Density - 403 (14:00 - 16:00)

### -Conveners: Tilo Wettig

| time  | [id] title  | presenter              |
|-------|---|------------------------|
| 14:00 | [31] Two-Color Lattice QCD with Non-zero Chiral Chemical Potential  | Mr KOTOV, Andrey       |
| 14:20 | [113] Lattice simulation of \$QC_2D\$ with \$N_f=2\$ at non-zero baryon density                                 | Mr NIKOLAEV, Alexander |
| 14:40 | [172] Cluster expansions and chiral symmetry at large density in 2-color QCD                                    | TOMBOULIS, Terry E.    |
| 15:00 | [143] Thimble regularization at work besides toy models: from Random Matrix<br>Theory to Gauge Theories.        | Mr ERUZZI, Giovanni    |
|       | [144] Thimble regularization at work for Gauge Theories: from toy models onwards.                               | Dr DI RENZO, Francesco |
| 15:40 | [86] Application of the Lefschetz thimble formulation to the (0+1) dimensional Thirring model at finite density | Dr KAMATA, Syo         |

### Nonzero Temperature and Density - 401 (14:00 - 16:00)

### -Conveners: Takashi Umeda

| time  | [id] title  | presenter             |
|-------|---|-----------------------|
| 14:00 | [176] Lattice NRQCD study of quarkonium at non-zero temperature   | Prof. KIM, Seyong     |
| 14:20 | [321] Charmonia and bottomonia at finite temperature on large quenched lattice  | Dr OHNO, Hiroshi      |
|       | [203]   | Mr IKEDA, Atsuro      |
| 15:00 | [273] Polyakov loop correlators and cyclic Wilson loop from lattice QCD   | Mr WEBER, Johannes    |
|       | [65] Static quark-antiquark pair free energy and screening masses: continuum results at the QCD physical point        | PASZTOR, Attila       |
|       | [22] Confinement/deconfinement transition temperature from the Polyakov loop potential and gauge-invariant gluon mass | Prof. KONDO, Kei-Ichi |

### Nonzero Temperature and Density - 401 (16:30 - 18:10)

### -Conveners: Masakiyo Kitazawa

| time  | [id] title   | presenter            |
|-------|--|----------------------|
|       | [292] A stochastic approach to the reconstruction of spectral functions in lattice QCD | Mr SHU, Hai-Tao      |
| 16:50 | [268] Thermal dilepton rates and electrical conductivity of the QGP                    | Mr MEYER, Florian    |
| 17:10 | [236] Calculation of free baryon spectral densities at finite temperature              | Ms PRAKI, Chrisanthi |
| 17:30 | [303] Nucleons and parity doubling across the deconfinement transition                 | ALLTON, Chris        |
| 17:50 | [68] Study of entropy production in Yang-Mills theory with use of Husimi function      | TSUKIJI, Hidekazu    |

### Nonzero Temperature and Density - 403 (16:30 - 18:10)

### -Conveners: Keitaro Nagata

time [id] title

| 16:30 | [222] Preweighting method in Monte-Carlo sampling with complex action   | Prof. OHNISHI, Akira       |
|-------|---|----------------------------|
| 16:50 | [145] The density of states approach at finite chemical potential: a numerical study of the Bose gas.                     | Dr PELLEGRINI, Roberto     |
| 17:10 | [41] Solving the complex action problem of the finite density Z3 spin model with the density of states approach using FFA | Mr TOEREK, Pascal          |
| 17:30 | [40] Density of states approach with FFA for an effective Polyakov loop model at finite density                           | Mr GIULIANI, Mario         |
| 17:50 | [118] Dual representation for massless fermions with chemical potential and U(1) gauge fields                             | Prof. GATTRINGER, Christof |

# Saturday, 18 July 2015

### Nonzero Temperature and Density - 401 (09:00 - 11:00)

### -Conveners: Urs Heller

| time  | [id] title  | presenter           |
|-------|---|---------------------|
| 09:00 | [182] On the axial U(1) symmetry at finite temperature  | Dr COSSU, Guido     |
|       | [162] Study of the U(1)A symmetry restoration in two-flavor QCD at finite temperature with reweighed overlap fermions             | Dr TOMIYA, Akio     |
|       | [291] The \$U_A(1)\$ anomaly in high temperature QCD with chiral fermions on the lattice  | Dr SHARMA, sayantan |
|       | [50] Thermal modification of mesons and restoration of broken symmetries from spatial correlation functions with HISQ             | Dr MAEZAWA, Yu      |
| 10:20 | [96] Footprint of non-decoupling in chiral phase transition   | Mr SATO, Tomomi     |
|       | [164] Determination of U_A (1) restoration from meson screening masses by using the entanglement PNJL model: Toward chiral regime | Mr ISHII, Masahiro  |

### Nonzero Temperature and Density - 406 (09:00 - 11:00)

### -Conveners: Christof Gattringer

| time  | [id] title   | presenter                |
|-------|--|--------------------------|
| 09:00 | [45] Hagedorn spectrum and equation of state of Yang-Mills theories  | Mr NADA, Alessandro      |
| 09:20 | [55] Higher order net baryon number cumulants in the strong coupling lattice<br>QCD                                    | Mr ICHIHARA, Terukazu    |
|       | [54] Polyakov line actions from SU(3) lattice gauge theory with dynamical fermions: first results via relative weights | HÖLLWIESER, Roman        |
|       | [142] Effective Polyakov loop models for QCD-like theories at finite chemical potential                                | Mr SCIOR, Philipp        |
| 10:20 | [209] G(2)-QCD at finite temperature and density   | Dr WELLEGEHAUSEN, Bjoern |
| 10:40 | [325] Phase diagram of the U(2)xU(2) scalar model in three dimensions  | Dr KAMIKADO, Kazuhiko    |