

**Constraining the QCD Phase Boundary with Data from
Heavy Ion Collisions: 12 - 14 February, 2018**

**EMMI Workshop Program
KBW Lecture Hall, GSI**

Monday

Chairperson Bengt Friman

9:00 9:05 *Welcome*

9:05 9:20 Peter Senger
Helmut Oeschler and the structure of matter

9:20 9:45 Anton Andronic
*Hadron production in high-energy nuclear collisions
and the QCD phase diagram*

9:45 10:10 Alexander Schmah
*Exploration of the QCD phase diagram with relativistic
heavy-ion collisions*

10:10 10:35 Peter Braun-Munzinger
*The QCD phase boundary and production of rare and
loosely bound objects*

10:35 11:00 **Coffee break**

Chairperson Carsten Greiner

11:00 11:25 Nu Xu
*Study of the QCD Medium Properties at Finite Baryon Density -
Recent Results from Beam Energy Scan at RHIC*

11:25 11:50 Volker Koch
Fluctuations and the structure of the QCD phase diagram

11:50 12:15 Marek Gazdzicki
*Study of onset of deconfinement and search for critical point
by NA61/SHINE at CERN SPS*

12:15 12:40 Anar Rustamov
*Fluctuations of conserved charges in the canonical ensemble:
confronting experimental results with theory*

12:40 14:00 **Lunch**

Chairperson	Dirk Rischke
14:00 14:25	Masakiyo Kitazawa <i>Evolution of critical fluctuation: Non-binomial efficiency correction</i>
14:25 14:50	Christian Schmidt <i>Recent results on cumulant ratios at nonzero temperature and density from lattice QCD</i>
14:50 15:15	Gabor Almasi <i>Exploring chiral symmetry restoration in heavy-ion collisions with fluctuation observables</i>
15:15 15:45	Coffee break
Chairperson:	Marcus Bleicher
15:45 16:10	Pasi Huovinen <i>Fictions, fluctuations and mean fields</i>
16:10 16:35	Michal Marczenko <i>Net-baryon number fluctuations in the quark-meson-nucleon model at finite baryon density</i>
16:35 17:00	Vladimir Y. Vovchenko <i>Baryon number fluctuations and singularities at real and complex baryochemical potential</i>

Tuesday

Chairperson	Michael Buballa
9:00 9:25	Helmut Satz <i>Color confinement and strangeness production</i>
9:25 9:50	Wolfram Weise <i>Strangeness in dense baryonic matter and "hyperon puzzle" in neutron stars</i>
9:50 10:15	Johanna Stachel <i>Probing deconfinement with heavy quarks</i>
10:15 10:45	Coffee break

Chairperson	Owe Philipsen
10:45 11:10	Joachim Stroth <i>Systematics of Strangeness Production at $\sqrt{s} = 2.4$ AGeV Au+Au Collisions</i>
11:10 11:35	Markus Bluhm <i>Diffusion dynamics of net-baryon fluctuations near the QCD critical point</i>
11:35 12:00	Nicole Loehner <i>(Anti-)(Hyper-)Nuclei, Resonances and Exotica with ALICE at the LHC</i>
12:00 12:25	Chihiro Sasaki <i>Parity doubling of baryons in QCD thermodynamics</i>
12:25 12:30	Carlo Ewerz <i>EMMI</i>
12:30 14:00	Lunch
Chairperson	Silvia Masciocchi
14:00 14:25	Kenji Morita <i>Probing Multistrange Dibaryons with Momentum Correlations in Heavy Ion Collisions</i>
14:25 14:50	Pok Man Lo <i>S-matrix approach to the thermodynamics of hadrons</i>
14:50 15:15	Norbert Herrmann <i>Status and Perspectives of the CBM Experiment</i>
15:15 15:45	Coffee break
Chairperson	Christian Sturm
15:45 16:10	Boris Hippolyte <i>Modeling particle production with "New THERMUS"</i>
16:10 16:35	Natasha Sharma <i>Study of chemical freeze-out parameters in pp, p-Pb and Pb-Pb collisions</i>
17:00 19:45	Conference Dinner in GSI Canteen

Wednesday

Chairperson Jean Cleymans

9:00 9:25 Wojtek Florkowski
Relativistic hydrodynamics of spinning fluids

9:25 9:50 Vladimir Skokov
*Probing onset of meson condensation phase
with higher-order cumulants*

9:50 10:15 Michal Szymanski
*Polyakov loop fluctuations in the presence
of external field*

10:15 10:45 **Coffee break**

Chairperson Krzysztof Redlich

10:45 11:10 Elena Bratkovskaya
Electromagnetic radiation of hot and dense matter

11:10 11:35 Tetyana Galatyuk
Exploring QCD phase diagram with dileptons

11:35 12:00 Alexander Rothkopf
*In-medium heavy quark potential for quarkonium as an
open quantum system*

12:00 **End of Workshop**