

Norwegian Winter Workshop on QCD in Extreme Conditions

Trondheim, 13–15 December 2012

Thursday December 13th

08:00–09:00 **Registration**

09:00–09:10 **Welcome**

Morning session (chair: K. Splittorff)

09:10–10:10 G. Endrődi: *QCD in magnetic fields – lattice results*

10:10–10:50 L. Palhares: *Deconfinement under strong magnetic fields*

10:50–11:20 **Coffee break**

11:20–12:00 A. Cruz: *Two-color QCD in a strong magnetic field: The role of the Polyakov loop*

12:00–12:40 T. Kojo: *The quark mass gap in a magnetic field*

Lunch break

Afternoon session (chair: T. Brauner)

14:00–15:00 A. Schmitt: *Inverse Magnetic Catalysis in dense matter*

15:00–15:40 M. Buballa: *Inhomogeneous phases in the QCD phase diagram*

15:40–16:10 **Coffee break**

16:10–17:10 L. von Smekal: *QCD-like theories at finite density*

17:10–17:50 C. Korthals-Altes: *Eigenvalue repulsion or centergroup symmetry: the chicken or the egg?*

Friday December 14th

Morning session (chair: A. Vuorinen)

09:00–09:40 Y. Schröder: *The Debye screening mass of hot QCD*

09:40–10:20 N. Su: *Yang-Mills thermodynamics from the Gribov region*

10:20–10:50 **Coffee break**

10:50–11:30 K. Splittorff: *Canonical determinants in QCD*

11:30–12:10 G. Markó: *Thermodynamics in the $O(N)$ model using the 2PI formalism at two-loop level*

Lunch break

Afternoon session (chair: A. Schmitt)

13:30–14:10 D. Parganlija: *Broken superfluidity in dense quark matter*

14:10–15:10 A. Vuorinen: *Quark number susceptibilities from perturbation theory*

15:10–15:40 **Coffee break**

15:40–16:20 M. Attems: *Longitudinal thermalization via the chromo-Weibel instability*

16:20–17:00 F. Michler: *Off-equilibrium photon production during the chiral phase transition*

18:00–18:45 **Guided tour at fortress**

19:00–??:?? **Workshop dinner**

Saturday December 15th

Morning session (chair: Y. Schröder)

09:00–10:00 M. Hindmarsh: *Signals from Phase Transitions in the Early Universe*

10:00–10:30 **Coffee break**

10:30–11:10 M. Herranen: *Resonant Leptogenesis*

11:10–11:50 A. Tranberg: *Cold Baryogenesis in the 2-Higgs doublet model*

11:50–12:00 **Concluding remarks, farewell**