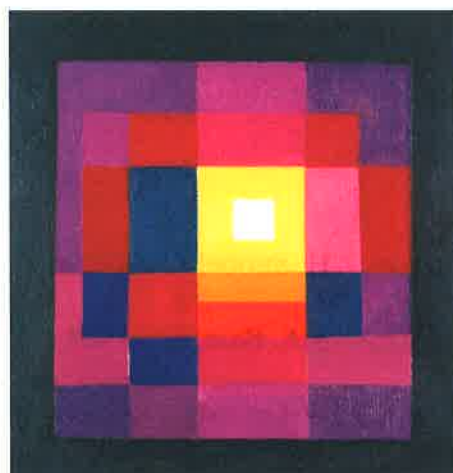


# Quark Matter '96

Twelfth International Conference on  
Ultra-Relativistic Nucleus-Nucleus Collisions  
Heidelberg, Germany, May 20-24, 1996



J. Itten "Revelation", 1967, © VG Bild-Kunst Bonn, 1995

## Scientific Program

### Monday morning

9:00 a.m.

#### Conference Opening

J. Hüfner  
B. Weber  
H. Schunck

Prorektor der Universität Heidelberg  
Oberbürgermeisterin der Stadt Heidelberg  
Bundesministerium für Bildung, Wissenschaft,  
Forschung und Technologie

#### Deconfinement and Chiral Symmetry Restoration

9:30 a.m. E. Laermann, Bielefeld

Lattice results on hot QCD matter

10:05 a.m. E. Shuryak, Stony Brook

Physics of the QCD phase transition: from  
microscopic mechanism to observables

10:40 a.m.

*break*

11:10 a.m. K. Kajantie, Helsinki

Condensed elementary particle matter

11:45 a.m. W. Weise, TU Munich

Hadrons in dense matter

12:20 p.m.

*lunch*

### Monday afternoon

#### Stopping and Flow

2:00 p.m. N. Herrmann, GSI Darmstadt

Particle production and flow at SIS energies

2:30 p.m. T. Hemmick, Stony Brook

Flow studies at 10 GeV/nucleon

3:00 p.m. T. Wienold, LBNL Berkeley

Stopping and collective effects at SPS energies

3:30 p.m. D. Rischke, Columbia

Hydrodynamics and collective behaviour in  
relativistic nuclear collisions

4:00 p.m.

*break*

4:30 p.m.	H. Ströbele, Frankfurt	Particle production in nuclear collisions from LBL/GSI to CERN energies
5:00 p.m.	S.A. Bass, Frankfurt	Microscopic calculations of stopping and flow from 160 MeV/nucleon to 160 GeV/nucleon
5:25 p.m.	A. Leonidov, Lebedev Moscow	Hadron spectra from nuclear collisions
5:50 p.m.	A. Capella, Orsay	Novel mechanism of nucleon stopping in heavy ion collisions
6:15 p.m.		<i>break</i>

## Tuesday morning

### **Hadron Yields and Spectra**

9:00 a.m.	Y. Akiba, Tokyo	Particle production in Au+Au collisions from BNL E866
9:30 a.m.	R. Lacasse, McGill Montreal	Hadron yields and spectra in Au+Au collisions at the AGS (E877)
10:00 a.m.	H. Helstrup, Bergen	WA97 results on strangeness production in lead-lead collisions at 160 A GeV/c
10:30 a.m.		<i>break</i>
11:00 a.m.	N. Xu, LANL Los Alamos	Hadron distributions: recent results from the CERN experiment NA44
11:30 a.m.	P. Jones, Birmingham	Hadron yields and hadron spectra from the NA49 experiment
12:00 a.m.	T. Peitzmann, Münster	Photon and neutral meson production in 158 A GeV/c Pb+Pb collisions (WA98)
12:30 p.m.		<i>lunch</i>

## Tuesday afternoon

### **Hadron Correlations**

2:00 p.m.	M. Baker, MIT	The centrality dependence of the source size for Au-Au collisions at the AGS (E866)
2:25 p.m.	D. Miskowiec, Stony Brook	HBT correlations in Au+Au collisions at AGS energy (E877)
2:50 p.m.	A. Franz, CERN	Probing the space-time evolution of heavy-ion collisions with HBT-correlations - recent results from the CERN experiment NA44
3:15 p.m.	K. Kadija, Zagreb	Particle correlations in Pb+Pb collisions at the CERN-SPS - results from the NA49 experiment
3:40 p.m.		<i>break</i>

- |           |                      |  |
|-----------|----------------------|--|
| 4:10 p.m. | L. Rosselet, Geneva  | Interferometry results from the CERN WA98 Pb-Pb experiment   |
| 4:35 p.m. | U. Heinz, Regensburg | How to extract physics from HBT radius parameters  |
| 5:05 p.m. | Y.M. Sinyukov, Kiev  | Interferometry radii for expanding hadron resonance gas  |
| 5:30 p.m. | G. Baym, Urbana      | Physics of Coulomb corrections of Hanbury-Brown Twiss interferometry in ultrarelativistic heavy-ion collisions |
| 5:55 p.m. |                      | <i>break</i>   |

Wednesday morning

**Antinuclei and Strangelets**

- |            |                            |   |
|------------|----------------------------|---|
| 9:00 a.m.  | H. Crawford, LBNL Berkeley | Antiparticle production and strangelet search (E878)                      |
| 9:25 a.m.  | F. Rotondo, Yale           | Strangelets, antimatter, and coalescence: First results from BNL AGS E864 |
| 9:50 a.m.  | R. Klingenberg, Bern       | Strangelet and antinuclei production in Pb-Pb collisions (NA52)           |
| 10:15 a.m. |                            | <i>break</i>  |

**Lepton Pairs**

- |            |                           |  |
|------------|---------------------------|--|
| 10:45 a.m. | T. Ullrich, Heidelberg    | First results from CERES/NA45 on low-mass electron pair production in Pb-Au collisions                                 |
| 11:10 a.m. | E. Scomparin, Torino      | Intermediate mass muon pair continuum and low mass resonances in Pb-Pb collisions at 158 A GeV/c (NA 50)               |
| 11:35 a.m. | C.M. Ko, Texas A&M        | Enhancement of low-mass dileptons in SPS heavy ion collisions: possible evidence for dropping rho meson mass in medium |
| 12:00 a.m. | D.K. Srivastava, Calcutta | Excess production of low mass lepton pairs in S+Au Collisions at the CERN-SPS  |
| 12:25 a.m. | B. Friman, GSI Darmstadt  | Medium effects in low mass lepton pair production  |
| 12:55 p.m. |                           | <i>lunch</i>   |

Thursday morning

**Heavy Quarkonia**

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|-----------|------------------------|--|
| 9:00 a.m. | A. Sansoni, Frascati   | Quarkonia Production at CDF                            |
| 9:30 a.m. | E. Braaten, Ohio State | Production of heavy quarkonia at high-energy colliders |

10:00 a.m.	P. McGaughey, LANL Los Alamos	Recent measurements of quarkonia production in proton-nucleus collisions
10:30 a.m.		<i>break</i>
11:00 a.m.	M. Gonin, Palaiseau	Anomalous $J/\psi$ suppression in Pb-Pb collisions at 158 A GeV/c (NA 50)
11:30 a.m.	D. Kharzeev, Bielefeld	Quarkonium production and deconfinement in nuclear collisions
12:00 a.m.	C.Y. Wong, ORNL Oak Ridge	Suppression of $J/\psi$ and $\psi'$ in high-energy heavy-ion collisions
12:25 p.m.		<i>lunch</i>

#### Thursday afternoon

#### **Recent Theoretical Developments**

2:00 p.m.	J. Bjorken, Stanford	Disoriented chiral condensate (not confirmed)
2:35 p.m.	A. Mueller, Columbia	Energy loss of quarks and gluons in hot and cold matter
3:10 p.m.	M. Asakawa, Columbia	What thermodynamics tells about QCD Plasma
3:35 p.m.	Z. Lin, Columbia	Nuclear gluon shadowing via continuum lepton pairs in p+A at $\sqrt{s}=200$ AGeV
4:00 p.m.		<i>break</i>
4:30 p.m.	E. Iancu, Saclay	Lifetime of quasiparticles in hot gauge theories
4:55 p.m.	T. Schäfer, Seattle	Non perturbative aspects of the chiral phase transition
5:20 p.m.	T. Wettig, MPI Heidelberg	The chiral phase transition in a random matrix model with molecular correlations
5:45 p.m.	D. B. Cline, UCLA Los Angeles	Primordial black-hole evaporation and quark- gluon phase transition
6:10 p.m.		<i>break</i>

#### Friday morning

#### **Concluding Session**

9:00 a.m.	H. Leutwyler, Bern	Implications of chiral symmetry for the hadronic phase of matter
9:35 a.m.	J. Stachel, Heidelberg	Tests of thermalization
10:10 a.m.	D. Ferenc, Zagreb	Recent results on hadron correlations
10:45 a.m.		<i>break</i>
11:15 a.m.	A. Drees, Heidelberg	Low mass dilepton and photon production
11:50 a.m.	C. Lourenço, CERN	Hard probes in nucleus-nucleus collisions
12:25 p.m.	Conference Closing	
12:45 p.m.		<i>lunch</i>