

RHIC Physics in the Context of the Standard Model: A Workshop and Symposium

Physics Department Large Seminar Room

June 18-23, 2006

Organizers:

Abhay Deshpande (SUNY, Stony Brook & RBRC)

[RIKEN BNL Fellow 2/2000 to 12/2003; RHIC Physics Fellow 1/2004 to present]

Dmitri Kharzeev (BNL)

[RIKEN BNL Fellow 08/1997 to 9/1999; RHIC Physics Fellow 10/1999 to 3/2000]

Raju Venugopalan (BNL)

[RHIC Physics Fellow 10/2000 to 6/2003]

Werner Vogelsang (BNL)

[RIKEN BNL Fellow 4/2000 to 9/2003; RHIC Physics Fellow 10/2003 to 3/2006]

Sun, June 18 **Welcome Reception**, Brookhaven Center South Room and Patio (6:00 – 7:30 pm)

Mon, June 19 **Workshop on Heavy Ion Physics**

[Session Chair: Anthony Baltz, BNL]

08:30 – 09:00

Registration

09:00 – 09:15

Welcome & Introduction (Nick Samios, Director, RBRC)

09:15 – 10:00

Experimental Overview (Matthias Perdekamp, U of IL at Urbana Champaign & RBRC)

[RIKEN BNL Fellow 1/1999 to 8/2002; RHIC Physics Fellow 9/2002 to present]

10:00 – 10:30

Ideal Hydrodynamics (Tetsufumi Hirano, University of Tokyo)

[Research Associate 3/2003 to 8/2004; Visiting Scientist 9/2004 to present]

10:30-11:00

Coffee Break

11:00 – 11:30

Color Glass Condensate (Kazunori Itakura, KEK)

[Research Associate 6/2002 to 5/2003]

11:30 – 12:00

Quarkonia I (Hiro Fujii, University of Tokyo)

[Research Associate 9/1997 to 9/1999]

12:00 – 2:00

Lunch Break

[Session Chair: Yasuyuki Akiba, RIKEN & RBRC]

02:00 – 02:30

Quarkonia II (Kirill Tuchin, Iowa State University & RBRC)

[RHIC Physics Fellow 9/2005 to present]

02:30 – 03:00

Strangeness (Jurgen Schaffner-Bielich, University of Frankfurt)

[Research Associate 9/1998 to 10/2001]

03:00 – 03:30

Charge Fluctuations (Sangyong Jeon, McGill University)

[RHIC Physics Fellow 1/2001 to 12/2005]

03:30 – 04:00

Coffee Break

04:00 – 04:30

Numerical Studies of Thermalization (Yasushi Nara, University of Frankfurt)

[Research Associate, 10/1999 to 9/2002]

04:30 – 05:00

Electric Dipole Moment Searches in Nuclei, Atoms, and Molecules

(David Kawall, U of MA & RBRC)

[RIKEN BNL Fellow 6/2004 to 1/2005; RHIC Physics Fellow 1/2005 to present]

Tues, June 20

RBRC Symposium

[Session Chair: Hideto En'yo, RIKEN & RBRC]

- 09:00 – 09:15 Opening Remarks (Nick Samios, Director, RBRC)
09:15 – 10:00 RHIC HI Theory (Dima Kharzeev, BNL)
[RIKEN BNL Fellow 8/1997 to 9/1999; RHIC Physics Fellow 10/1999 to 3/2000]
10:00 – 10:45 Experiments at RHIC: Exciting Discoveries & Future Plans (Barbara Jacak, SUNY, Stony Brook)

10:45 – 11:00 Coffee Break

- 11:00 – 11:45 Spin: Some Answers, Many Questions (Robert Jaffe, MIT)
11:45 – 12:30 RHIC Spin Experiment (Naohito Saito, Kyoto University)
[RIKEN Special Postdoc Fellow 4/1995 to 3/1996; RIKEN/RBRC Researcher 4/1996 to 3/2001; RIKEN Spin Program Researcher 4/2001 to 3/2002; RSP Visiting Scientist 3/2002 to present]

12:30 – 2:00 Lunch Break

[Session Chair: Larry Trueman, BNL]

- 02:00 – 02:45 Past, Present & Future of Lattice Gauge Theory (Norman Christ, Columbia University)
02:45 – 03:30 Chiral Symmetry Restoration and In-Medium Hadron Properties (Dirk Rischke, U of Frankfurt)
[RIKEN BNL Fellow 9/1997 to 9/2000; RHIC Physics Fellow 10/2000 to 1/2001]

03:30 – 04:00 Coffee Break

- 04:00 – 05:00 The State of the Universe (John Huchra, Harvard University)

Wed, June 21

RBRC Symposium

[Session Chair: Michael Creutz, BNL]

- 09:00 – 09:10 Introduction (Sam Aronson, Interim Director, BNL)
09:10 – 09:55 Electroweak Physics (Bill Marciano, BNL)
09:55 – 10:40 Neutrino Experiments (Takaaki Kajita, University of Tokyo)

10:40 – 11:00 Coffee Break

- 11:00 – 11:45 Using AdS/CFT to explore the Strong Coupling Regime of Gauge Theories: I (Steve Gubser, Princeton University)
11:45 – 12:30 Using AdS/CFT to explore the Strong Coupling Regime of Gauge Theories: II (Dam Son, INT, University of WA)
[RHIC Physics Fellow 10/1999 to 3/2002]

12:30 – 02:00 Lunch Break

[Session Chair: Rob Pisarski, BNL]

- 02:00 – 02:45 QCD Thermodynamics I (Jean-Paul Blaizot, ECT* and CNRS)
02:45 – 03:30 QCD Thermodynamics II (Dietrich Bodeker, Bielefeld University)
[RHIC Physics Fellow 12/2000 to 12/2001]

- 03:30 – 04:00** **Coffee Break**
- 04:00 – 04:45 Phase Structure of QCD at Finite T and μ (Misha Stephanov, University of IL, Chicago)
[RHIC Physics Fellow 10/1999 to 9/2004]
- 04:45 – 05:30 Static and Dynamic Correlations in Hot QCD (Tetsuo Hatsuda, University of Tokyo)
- 07:00 – 10:00** **Symposium Banquet**, Veranda Room at the Inn at East Wind in Wading River

Thurs, June 22 **RBRC Symposium**

[Session Chair: Shigemi Ohta, KEK and RBRC]

- 09:00 – 09:45 Ultrahigh Energy Cosmic Rays (Alex Kusenko, UCLA)
[RHIC Physics Fellow 10/1999 to 9/2004]
- 09:45 – 10:30 Non-Perturbative Methods in QCD at finite T and μ (Thomas Schaefer, NC State University)
[RHIC Physics Fellow 1/2000 to 12/2002 and 1/2003 to 12/2004]
- 10:30 – 11:00** **Coffee Break**
- 11:00 – 11:45 Light Quarks on the Lattice (Sinya Aoki, University of Tsukuba)
[RHIC Physics Fellow 4/2004 to present]
- 11:45 – 12:30 Semileptonic Decays on the Lattice (Shoichi Sasaki, University of Tokyo & RBRC)
[Research Associate 9/1998 to 9/2000; RIKEN BNL Fellow 10/2004 to present]
- 12:30 – 02:00** **Lunch Break**

FREE AFTERNOON FOR DISCUSSIONS

Fri, June 23 **Workshop on Spin & Lattice**

[Session Chair: Gerry Bunce, BNL]

- 09:00 – 09:45 QCD Spin Physics - A Theoretical Overview (Daniel Boer, Free University, Amsterdam)
[Research Associate 10/1998 to 6/2001]
- 09:45 – 10:30 Experimental Overview (Doug Fields, University of NM & RBRC)
[RHIC Physics Fellow 9/2001 to present]
- 10:30 – 11:00 Parity Odd Asymmetries (Hiroshi Yokoya, Niigata University)
[RSP Young Researcher 4/2003 to 3/2005]
- 11:00 – 11:30** **Coffee Break**
- 11:30 – 12:00 Structure Functions on the Lattice (Kostas Orginos, College of William and Mary)
[Research Associate 10/2000 to 8/2003]
- 12:00 – 12:30 Weak Matrix Elements (Taku Izubuchi, Kanazawa University & RBRC)
[RHIC Physics Fellow 4/2003 to present]
- 12:30 – 02:00** **Lunch Break**
- [Session Chair: Peter Petreczky, BNL & RBRC]*
- 02:00 – 02:30 Cold Atoms on the Lattice (Matt Wingate, University of WA)
[Research Associate 9/1997 to 9/2000]
- 02:30 – 03:00 Lattice Thermodynamics (Yasumichi Aoki, University of Wuppertal)

03:00 - 03:30 [Research Associate 5/2000 to 4/2003; Visiting Scientist 4/2003 to 7/2003]
Kaon Physics in Full Domain-Wall QCD (Junichi Noaki, University of Southampton)
[Research Associate 7/2001 to 6/2004]

3:30 - 4:00 Coffee Break

04:00 - 04:30 Dynamical Wilson Fermions (Tomomi Ishikawa, University of Tsukuba)

04:30 - 04:45 Concluding Remarks (Larry McLerran, BNL & RBRC)

Last Updated: 20-Jun-2006