



XXXVII International Symposium  
on MultiParticle Dynamics  
Berkeley, August 5 - 9, 2007



## Conveners for Scientific Sessions

### *I. Jet Physics*

Carlos Salgado (La Sapienza) and Helio Takai (Upton)

### *II. Fluctuations and Correlations*

Sandra Padula (Sao Paulo), Mike Strickland (Frankfurt),  
Ron Soltz (Livermore) and Gunther Roland (Boston)

### *III. Small-x Physics and Diffraction*

Yuri Kovchegov (Columbus) and Anna Stasto (Penn State)

### *IV. Soft Interactions*

Dan Cebra (Davis) and Stefan Soldner-Rembold (Manchester)

### *V. Astroparticle Physics*

Joachim Drescher (Frankfurt) and Petra Huentemeyer (Los Alamos)

### *VI. Particle Propagating in Dense Matter*

Jorge Casalderrey-Solana (Berkeley), Igor Dremin (Moscow),  
Jiangyong Jia (Stony Brook), and Fuqiang Wang (West Lafayette)

### *VII. Heavy Quark Productions*

Christian Bauer (Berkeley), William Gary (Riverside),  
and Huan Huang (Los Angeles)

**XXXVII International Symposium on Multiparticle Dynamics**  
 August 4 – 9, Saturday – Thursday, 2007  
 Lawrence Berkeley National Laboratory, Berkeley CA 94720, USA

Aug 4 Saturday	Aug 5 Sunday	Aug 6 Monday	Aug 7 Tuesday	Aug 8 Wednesday	Aug 9 Thursday
	8:00am (Auditorium) <b>Registration</b>  9:00am-12:30pm Session I <b>Jet Physics</b>	8:45am-12:30pm Session III <b>Small x and Diffraction</b>	8:45am-12:30pm Session V <b>Astroparticle Physics</b>	8:45am-5:30pm Session VI <b>Particle Propagating in Dense Matter</b>	8:45am-4:00pm Session VII <b>Heavy Quark Production</b>
4:30pm (Foothill) <b>Registration Reception</b>	1:30pm-9:30pm Session II <b>Fluctuations &amp; Correlations</b>	1:30pm-5:30pm Session IV <b>Soft Interactions</b>	1:30pm <b>Excursion</b>	6:00pm <b>Conf. Dinner</b>	4:20pm-5:00pm Session VIII <b>Conference Summary</b>  5:00pm <b>Adjourn</b>

**August 4, Saturday (Foothill Facility)**

---

4:30 PM Arrival, Registration

6:00 PM Orientation - Refreshments Served

---

**August 5, Sunday (Bldg. 50 Auditorium)**

---

- 8:00 AM Registration  
8:50 AM Announcements  
9:00 AM James Symons (BNL)  
*Welcome*

**Session I: Jet Physics**

**Chair: Helio Takai (BNL)**

- 9:10 AM Gavin Salam (U. Jussieu)  
*Recent progress in defining and understanding jets*  
9:35 AM Cyrille Marquet (BNL)  
*Mueller-Navelet jets at the Tevatron and LHC*  
10:00 AM Andreas Morsch (CERN)  
*Jets in heavy ion collisions at the LHC*  
10:25 AM Kenichi Hatakeyama (Rockefeller U.)  
*Jet physics at CDF*

10:50 AM **Open Discussions – Refreshments provided**

**Chair: Carlos Salgado (La Sapienza)**

- 11:10 AM Nicola Coppola (DESY)  
*High- $p_T$  jets in DIS and photoproduction at HERA*  
11:35 AM Rudy Hwa (Oregon U.)  
*Ridges and  $v_2$  without hydrodynamics*  
12:00 Noon Leif Lonnblad (Lund U.)  
*Diffraction in the dipole cascade picture*  
12:25 PM **Working Lunch**

---

**August 5, Sunday (Bldg. 50 Auditorium)**

---

**Session II: Fluctuations and Correlations**

- Chair: Sandra Padula (Sao Paulo U.)**  
1:45 PM Scott Pratt (MSU)  
*HBT overview*
- 2:15 PM Adrian Dumitru (FIAS)  
*The initial state for hydro at RHIC*
- 2:40 PM Gunther Roland (MIT)  
 *$v_2$  fluctuations at RHIC*
- 3:05 PM Marcus Bleicher (U. Frankfurt)  
*The effect of dynamical parton recombination on event-by-event fluctuations*
- 3:30 PM **Open Discussions – Refreshments provided**
- Chair: Michal Sumbera (NPI, ASCR)**  
3:45 PM Mike Lisa (Ohio State U.)  
*HBT in LHC/ALICE*
- 4:10 PM Pawel Danielewicz (MSU)  
*An imaging overview*
- 4:35 PM Paul Chung (SUNY Stony Brook)  
*Two-pion source-function extraction from SPS to RHIC*
- 5:00 PM Thomas Humanic (Ohio State U.)  
*Predictions for the LHC*
- 5:30 PM **Dinner at Foothill**

**August 5, Sunday (Stern Hall)**

---

- Chair: Ron Soltz (LLNL)**
- 7:30 PM** Boris Tomasik (Czech Tech. U.)  
*Spinodal decomposition and fluctuations of rapidity distributions*
- 7:55 PM** Frederique Grassi (Sao Paulo U.)  
*The  $v_2$  fluctuations in SPheRIO*
- 8:20 PM** Gerald Miller (U. of Washington)  
*Final state interactions, Chiral symmetry restoration, and the RHIC HBT puzzle*
- 8:55 PM** Adam Kisiel (Ohio State U.)  
*Update on STAR and therminator*
- 9:20 PM** Máté Csanád (ELTE University)  
*HBT in Buda-Lund model*

---

**August 6, Monday (Bldg. 50-Auditorium)**

---

**Session III: Small-x and Diffraction**

**Chair: Anna Stasto (Penn State U.)**

- 8:45 AM Alessandro Polini (INFN Bologna)  
*Low-x QCD dynamics probed by multijets at HERA*
- 9:05 AM William Schmidke (MPI)  
*Inclusive diffraction and jet cross section at HERA*
- 9:25 AM Hannes Jung (DESY)  
*Vector meson and DVCS cross sections at HERA*
- 9:45 AM Thomas Ullrich (BNL)  
*Status of EIC/eRHIC project*
- 10:10 AM Eugene Levin (Tel Aviv U.)  
*Low-x and diffraction*
- 10:35 AM **Open Discussions – Refreshments provided**

**Chair: Yuri Kovchegov (Ohio State U.)**

- 10:50 AM Alfred Mueller (Columbia U.)  
*High parton density QCD*
- 11:15 AM Gavin Salam (U. Jussieu)  
*Matrix combination of BFKL and DGLAP*
- 11:40 AM Heribert Weigert (Ohio State U.)  
*Running coupling corrections in small-x evolution*
- 12:05 PM Ian Balitsky (U. Old Dominion)  
*NLO evolution of the color dipole*
- 12:30 PM Chung-I Tan (Brown U.)  
*High energy diffractive scattering and the pomeron from gauge/string duality*
- 12:55 PM **Working Lunch**

---

**August 6, Monday (Bldg. 50-Auditorium)**

---

**Session IV: Soft Interactions**

- Chair: Dan Cebra (UC Davis)**
- 2:10 PM David Muller (SLAC)  
*Measurements of  $e^+e^- \rightarrow$  hadrons cross sections at BaBar*
- 2:40 PM Anna Galas (U. Krakow)  
*Particle production in DIS and photoproduction from ep collisions*
- 3:00 PM Brian Cox (U. Manchester)  
*FP420: Expanding the forward physics program at the LHC*
- 3:20 PM Kai Schweda (U. Heidelberg)  
*Bulk properties of QCD matter at highest collider energies*
- 3:40 PM Bedanga Mohanty (LBNL)  
*Search for the effects of the QCD color factor in high energy collisions at RHIC*
- 4:00 PM **Open Discussions – Refreshments provided**
- Chair: Tim Hallman (BNL)**
- 4:10 PM Tetsufumi Hirano (U. Tokyo)  
*Collective flow from a hydro+cascade approach*
- 4:30 PM Peter Seyboth (MPI)  
*Recent results from NA49 on Pb+Pb collisions at the CERN SPS*
- 4:50 PM Asis Chaudhuri (VECC)  
*Dissipative hydrodynamics*
- 5:10 PM Takeshi Kodama (U. Rio de Janeiro)  
*On the relativistic covariant approach to Langevin equation*
- 5:30 PM Viacheslav Kuvshinov (JIPN)  
*Colour decoherence into white mixed states in QCD vacuum*

---

**August 7, Tuesday (Bldg. 50 Auditorium)**

---

**Session V: Astroparticle Physics**

**Chair: Petra Huentemeyer (LANL)**

**8:45 AM** Kai Martens (U. of Utah)  
*Results from the HiRes experiment and observation of the GZK suppression*

**9:15 AM** Joao Torres de Mello Neto (UF do Rio de Janeiro)  
*Results from the Pierre Auger Observatory*

**9:45 AM** Glennys Farrar (New York U.)  
*What can we conclude from UHECR observations?*

**10:15 AM Open Discussions – Refreshments provided**

**Chair: Tamas Csorgo (KFKI)**

**10:35 AM** Amanda Weinstein (UCLA)  
*Status and results of the VERITAS experiment*

**11:05 AM** Petra Huentemeyer (LANL)  
*Results from Milagro*

**11:35 AM** Steve Barwick (UC Irvine)  
*Results from Anita*

**12:00 Noon Working Lunch**

---

**August 8, Wednesday (Bldg. 50 Auditorium)**

---

**Session VI: Particle Propagating in Dense Matter**

**Chair: Fuqiang Wang (Purdue U.)**

**8:45 AM** Jiangyong Jia (SUNY Stony Brook)  
*Probing the sQGP via dihadron correlations: jet quenching and medium response*

**9:15 AM** Jana Bielcikova (Yale U.)  
*Near-side di-hadron correlations at RHIC*

**9:45 AM** Carlos Salgado (La Sapienza)  
*Away-side modification and near-side ridge*

**10:15 AM** **Open Discussions – Refreshments provided**  
**Photo Session**

**Chair: Igor M. Dremin (LPI)**

**10:50 AM** Justin Frantz (Columbia U.)  
*High  $p_T$  spectra and correlations of jets with other probes at RHIC*

**11:20 AM** Olga Barannikova (UIC)  
*Jet studies at RHIC via 2+1 correlations - exploring surface vs. volume effects*

**11:50 AM** Abhijit Majumder (Duke U.)  
*The study of dense matter through perturbative jet modification*

**12:20 PM** Enke Wang (IOPP)  
*A NLO analysis on fragility of di-hadron tomography in high-energy nuclear collisions*

**12:45 PM** **Working Lunch**

---

**August 8, Wednesday (Bldg. 50 Auditorium)**

---

- Chair: Jorge Casalderrey-Solana (LBNL)**
- 2:00 PM Stefan Kniege (Frankfurt U.)  
*Two- and three-particle correlations from SPS*
- 2:30 PM Jason Ulery (Purdue U.)  
*Three-particle correlations measurements at RHIC*
- 3:00 PM Joerg Ruppert (McGill U.)  
*Mach cone shock waves at RHIC*
- 3:30 PM **Open Discussions – Refreshments provided**
- Chair: Jiangyong Jia (SUNY Stony Brook)**
- 3:50 PM Amos Yarom (Munich U.)  
*AdS/CFT*
- 4:20 PM Igor M. Dremin (LPI)  
*Cerenkov gluons*
- 4:50 PM Anne Sickles (BNL)  
*Identified particle correlations at RHIC: medium interactions and modified fragmentation*
- 5:20 PM Giulia Pancheri (INFN, Frascati)  
*Large rapidity gap survival probability from QCD mini-jets and soft resummation*
- 5:40 PM Krzysztof Fialkowski (Jagellonian U.)  
*On the electroproduction on nuclei*
- 6:00 PM **Conference Dinner**

**Bruno Touschek and the Art of Physics**

A documentary by L. Bonolis and E. Agapito, produced by INFN.  
Dr. Giulia Pancheri will give an introduction to the video.

**August 9, Thursday (50-Auditorium)**

---

**Session VII: Heavy Quark Production**

**Chair: William Gary (UC Riverside)**

8:45 AM Katja Krueger (U. Heidelberg)

*Heavy flavor production in ep collisions*

9:15 AM Jorge Casalderrey-Solana (LBNL)

*Heavy quark propagation in an AdS/CFT plasma*

9:45 AM Xin Dong (LBNL)

*Open charm production in RHIC*

10:15 AM Tania Moulik (U. Kansas)

*Recent b-hadron spectroscopy results from the Tevatron*

10:45 AM **Open Discussions – Refreshments provided**

**Chair: Christian Bauer (LBNL)**

11:00 AM Abigail Bickley (MSU)

*If quarkonia could talk: from SPS to RHIC*

11:30 AM Bryan Fulsom (U. British Columbia)

*New results in charmonium physics at BaBar*

12:00 Noon Che-Ming Ko (Texas A&M)

*Thermal charm production at LHC*

12:30 PM **Working Lunch**

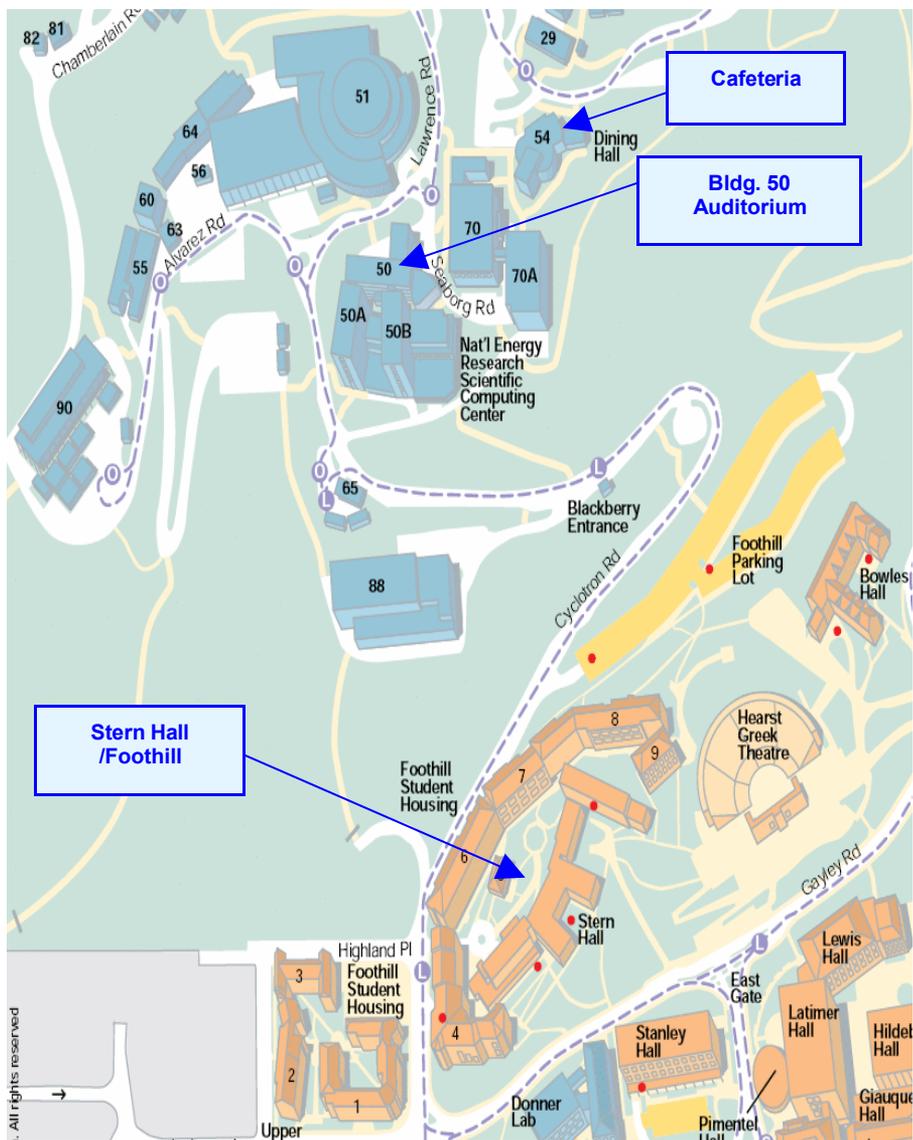
---

**August 9, Thursday (50-Auditorium)**

---

- Chair:** Elena Kokouline (JINR)
- 2:00 PM** Ramona Vogt (LLNL)  
*Charm production cross-section versus energy*
- 2:30 PM** Matteo Cacciari (U. Paris)  
*Heavy quark production*
- 3:00 PM** Gennday Kozlov (JINR)  
*The extended model of the flux-tube phase transitions and deconfinement*
- 3:25 PM** Wei-Liang Qian (Sao Paulo U.)  
*An approach to chemical freeze-out scenario of identified particle spectra at 200A GeV Au-Au collisions at RHIC*
- 3:45 PM** Mikhail Tokarev (JINR)  
*High- $p_T$  spectra from RHIC and QCD test of z-scaling*
- 4:05 PM** **Open Discussions – Refreshments provided**
- Session VIII: Closing**
- Chair:** Hannes Jung (DESY)
- 4:20 PM** Zhangbu Xu (BNL)  
*Conference Summary*
- 5:00 PM** **Adjourn**

XXXVII International Symposium on MultiParticle Dynamics



# INTERNATIONAL SYMPOSIUM ON MULTIPARTICLE DYNAMICS

AUGUST 4 - 9, 2007

LAWRENCE BERKELEY NATIONAL LABORATORY

[HTTP://WWW-NSD.LBL.GOV/ISMD](http://www-nsd.lbl.gov/ISMD)

[ISMD07@LBL.GOV](mailto:ISMD07@LBL.GOV)

## TOPICS:

SOFT INTERACTIONS

FLUCTUATIONS AND CORRELATIONS

JET PHYSICS

HEAVY FLAVOR PRODUCTION

ASTROPARTICLE PHYSICS

SMALL-X PHYSICS AND DIFFRACTION

PARTICLE PROPAGATION IN DENSE MATTER

## LOCAL ORGANIZERS:

D. CEBRA, DAVIS

T. HALLMAN, UPTON

CO-CHAIR

H. Z. HUANG, LOS ANGELES

V. KOCH, BERKELEY

R. PISARSKI, UPTON

G. ROLAND, BOSTON

R. SOLTZ, LIVERMORE

H. TAKAI, UPTON

N. XU, BERKELEY

CO-CHAIR

## INTERNATIONAL ADVISORY COMMITTEE:

A. BIALAS, CRACOW

J. D. BJORKEN \*

T. CSÖRGÖ, BUDAPEST

J. DIAS DE DEUS, LISBOA

I. DREMIN, MOSCOW

K. FIAKOWSKI, CRACOW

W. GARY, RIVERSIDE

G. GUSTAFSON, LUND

Y. HAMA, SÃO PAULO

L. JENKOVSKY, KIEV

W. KITTEL, NIJMEGEN

T. KODAMA, RIO DE JANEIRO

L. LIU, WUHAN

L. MCLERRAN, UPTON

W. METZGER, NIJMEGEN

L. SANDOR, KOSICE

N. SCHMITZ, MUNICH

V. SIMAK, PRAGUE

A. SISSAKIAN, DUBNA

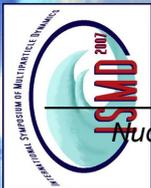
H. STÖCKER, FRANKFURT

F. WANG, PURDUE

E. DE WOLF, ANTWERP

Y. WU, WUHAN

\* TBA



Nuclear Science Division, Lawrence Berkeley National Laboratory

