

# XXXII International Symposium on Multiparticle Dynamics

*Alushta, Crimea, Ukraine, September 7 - 13, 2002*

## PROGRAMME

Saturday, September 7

Arrival

Registration

Sunday, September 8

09.00 - 09.10	<b>Opening</b> <b>Welcome speech</b>	<b>A.N. Sissakian</b> <b>A.A. Nechaev</b>
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## Commemorative Session for Bo Andersson

*Chair: A. Sisskian*

09.10	<b>G. Gustafson (Lund, Sweden)</b> <i>"Life and work of Bo Andersson"</i>	20 min.
09.30	<b>F. Soderberg (Lund, Sweden)</b> <i>"Recent developments of the Lund fragmentation model"</i>	20 min.
9.50	<b>A. De Angelis (Udine, Italy)</b> <i>"Contribution of Bo Andersson to experimental multiplicity production physics"</i>	20 min.
10.10	<b>M.H. Seymour (Manchester, UK)</b> <i>"The Lund model and its Monte Carlo implementations "</i>	20 min.

*10.30 - 11.00 Coffee/tea break*

# Session I. Fluctuations and Correlations

Conveners: K. Fialkowsky, V. Kuvshinov and Yu. Sinyukov

Chair: V. Kuvshinov

11.00	<b>R. Lednicky (JINR)</b> "Progress in correlation femtoscopy"	40 min.
11.40	<b>K. Fialkowsky (Cracow, Poland)</b> "Fitting free parameters in the weight method for Bose-Einstein effect"	20 min.
12.00	<b>F. Bopp (Siegen, Germany)</b> "Charged particle fluctuation in heavy ion collisions"	20 min.
12.20	<b>T. Csorgo (Budapest, Hungary)</b> "Analytical calculation of Bose-Einstein correlations in $e^+e^-$ reactions at LEP 1 and LEP 2"	20 min.
12.40	<b>N. Pukhaeva (JINR)</b> "Effects of FSI, CR and BEC at small relative momenta of particles and W-mass systematics at LEP"	20 min.

13.00 – 15.00 Lunch

Chair: K. Fialkowsky

15.00	<b>J. D'Hondt (Brussels, Belgium)</b> "Study of colour reconnection effects in WW events"	20 min.
15.20	<b>G. Wilk (Warsaw, Poland)</b> "Bose-Einstein correlations as correlations of fluctuations"	20 min.
15.40	<b>R. Ugoccioni (Torino, Italy)</b> "Forward-backward multiplicity correlations in asymmetric reactions"	20 min.

16.00 — 16.20 Coffee/tea break

Chair: Yu. Sinyukov

16.20	<b>E. Sarkisyan-Grinbaum (CERN)</b> "Bose-Einstein correlations of neutral pion pairs from Z0 hadronic decays"	20 min.
16.20	<b>Y. Hama (Sao Paulo, Brazil)</b> "Effects of event-by-event fluctuations of the initial conditions of hydrodynamics"	20 min.
17.20	<b>C. Merino (Santiago de Compostela, Spain)</b> "Correlation between average $p_T$ and jet multiplicities from the BFKL pomeron"	20 min.

19.00 Welcome reception

Monday, September 9

## Session II. Relativistic Heavy Ion Collisions (Exp)

*Conveners: T. Hallman and Yu. Panebratsev*

*Chair: T. Hallman*

9.00	<b>F. Antinori (Padua, Italy)</b> <i>"Results from the CERN-SPS Pb ion program"</i>	40 min.
9.40	<b>J. Dunlop (BNL, USA)</b> <i>"Review on recent results from RHIC"</i>	40 min.
10.20	<b>K. Filimonov (LBL, USA)</b> <i>"Anisotropy and high <math>p_T</math> hadrons in Au +Au collisions at RHIC"</i>	20 min.
10.40	<b>S. Panitkin (BNL, USA)</b> <i>"Particle interferometry at RHIC"</i>	20 min.

*11.00 – 11.20 Coffee/tea break*

*Chair: Yu. Panebratsev*

11.20	<b>L. Gutay (West Lafayette, USA)</b> <i>"Experimental evidence for hadron deconfinement in <math>\bar{p} - p</math> collisions at <math>s^{1/2} = 1.8</math> TeV"</i>	20 min.
11.40	<b>Nu Xu (LBL, USA)</b> <i>"Transverse dynamics at RHIC"</i>	20 min.
12.00	<b>M. Lisa (Ohio, USA)</b> <i>"HBT in non-central collision at RHIC"</i>	20 min.
12.20	<b>J. Lajoie (Iowa, USA)</b> <i>"Hard scattering at RHIC: where we've been, where we're going"</i>	20 min.
12.40	<b>M. Monteno (Torino, Italy)</b> <i>"Results from the NA50 experiment on <math>J/\Psi</math> suppression and charged particle pseudorapidity distributions in Pb-Pb collisions"</i>	20 min.
13.00	<b>G. Melkumov (JINR)</b> <i>"Deuteron and proton production in Pb+Pb collisions at 40, 80 and 160 GeV"</i>	20 min.

*13.20 – 15.00 Lunch*

## Session III. Relativistic Heavy Ion Collisions (Theory)

Conveners: G. Zinoviev, V. Emelianov and M. Gorenstein

Chair: V. Emelianov

15.00	<b>K. Haglin (St. Cloud, USA)</b> "Charmonium breakup in hadronic matter"	20 min.
15.20	<b>Y. Sinyukov (Kiev, Ukraine)</b> "On freeze-out problem in hydro-kinetic approach to A+A collisions"	20 min.
15.40	<b>V. Okorokov (Moscow, Russia)</b> "Two-particle correlations measurements with STAR Detector at RHIC"	20 min.
16.00	<b>M. Gorenstein (Kiev, Ukraine)</b> "Statistical $J/\Psi$ production in A +A collisions"	20 min.
16.20	<b>G. G. Barnafoldi (Budapest, Hungary)</b> "High $p_T$ pion production in heavy-ion collisions"	20 min.

16.40 — 17.00 Coffee/tea break

Chair: M. Gorenstein

17.00	<b>N. Amelin (JINR)</b> "Development and application of the numerical model components for nuclear collisions"	20 min.
17.20	<b>V. Magas (Kiev, Ukraine)</b> "Hadronization and freeze out from supercooling QGP"	20 min.
17.40	<b>D. Toivonen (JINR)</b> "Z scaling, high $p_T$ and cumulative particle production in p-A collisions at high energies"	20 min.
18.00	<b>M. Calderon (Mexico)</b> "Spectra physics at RHIC"	20 min.
18.20	<b>I. Lokhtin (Moscow, Russia)</b> "Jet quenching in heavy ion collisions at LHC"	20 min.

19.00 Dinner

Tuesday, September 10

## Session IV. Diffraction

*Conveners: V. Fadin and L. Jenkovszky*

*Chair: L. Jenkovszky*

9.00	<b>N. Nikolaev (Juelich, Germany/Moscow, Russia)</b> <i>"High density QCD, saturation and diffractive DIS"</i>	40 min.
9.40	<b>V. Fadin (Novosibirsk, Russia)</b> <i>"A proof of the gluon reggeization in the NLO"</i>	20 min.
10.00	<b>L. Lipatov (St. Petersburg, Russia)</b> <i>"Baxter-Sklyanin representation for the interaction of reggeized gluon"</i>	20 min.
10.00	<b>P. Laycock (Liverpool, UK)</b> <i>"Measurement and QCD analysis of inclusive diffraction at HERA"</i>	20 min.

*10.40 – 11.00 Coffee/tea break*

*Chair: V. Fadin*

11.00	<b>D. Shirkov (JINR)</b> <i>"On the long-range and infrared behaviour of the QCD coupling function"</i>	30 min.
11.30	<b>N. Zotov (Moscow, Russia)</b> <i>"Heavy quark production with BFKL and CCFM dynamics"</i>	20 min.
11.50	<b>A. Malecki (Cracow, Poland)</b> <i>"Diffractive scattering without diffractive DIPS"</i>	20 min.
12.10	<b>V. Simak (Prague, Czech Republic)</b> <i>"Diffractive and QCD jets in experiment D0"</i>	20 min.

*13.00-14.00 Lunch*

14.00 Excursion

*19.00 Dinner*

Wednesday, September 11

Session V. Soft Processes

Conveners: A. Kaidalov and V. Petrov

Chair: A. Kaidalov

9.00	<b>V. Kuvshinov (Minsk, Belorussia)</b> "Nonperturbative gluon evolution and instability in jets"	20 min.
9.20	<b>G. Graziani (Orsay, France)</b> "The final result on direct CP violation from the NA 48 experiment"	20 min.
9.40	<b>A. Valkarova (Prague, Czech Republic)</b> "ep Scattering at low Q <sup>2</sup> "	20 min.
10.00	<b>N. Moggi (Bologna, Italy)</b> "Strangeness production in minimum bias events at CDF"	20 min.
10.20	<b>A. Arkhipov (Protvino, Russia)</b> " Three-body forces in multiparticle dynamics: new sites of fundamental physics"	20 min.
10.40	<b>B. Echenard (Geneva, Switzerland)</b> "Two-photon collisions at L3 at LEP"	20 min.

11.00 – 11.20 Coffee/tea break

Chair: T. Csorgo

11.20	<b>S. Troshin (Protvino, Russia)</b> "Antishadow effects in multiparticle production"	20 min.
11.40	<b>Y. Bedfer (Saclay, France)</b> " $\Delta G$ at COMPASS: prospects for the 2002 run"	20 min.
12.00	<b>P. Chliapnikov (Protvino, Russia)</b> "New results from the DELPHI experiments at LEP"	20 min.
12.20	<b>R. Ciesielski (Warsaw, Poland)</b> "Vector mesons production and DVCS at HERA "	20 min.
12.40	<b>M. Iori (Roma, Italy)</b> "Observation of double-charm baryons ( $\epsilon 781$ )"	20 min.

13.00 – 15.00 Lunch

## Session VI. QCD and Hard Processes

Conveners: *J.W. Gary and S. Tapprogge*

Chair: **J.W. Gary**

15.00	<b>I. Dremin (Moscow, Russia)</b> "QCD physics at LEP"	40 min.
15.40	<b>J. Gayler (DESY, Germany)</b> "Structure functions at HERA"	20 min.
16.00	<b>A. Korytov (Florida, USA)</b> "QCD physics at Tevatron and LHC"	20 min.
16.20	<b>A. Dorokhov (JINR)</b> "Instanton model of light hadrons: from low to high energies"	20 min.
16.40	<b>A.J. Finch (Lancaster, UK)</b> "Recent results from ALEPH in two photon physics"	20 min.

*17.00 — 17.20 Coffee/tea break*

Chair: **L. Lipatov**

17.20	<b>J. Schieck (Munich, Germany)</b> "Power corrections and QCD colour factors from $e^+e^-$ event shapes at $s^{1/2} = 14$ to 189 GeV"	20 min.
17.40	<b>W. J. Metzger (Nijmegen, The Netherlands)</b> "Oscillating $H_q$ intermittency indices, and QCD"	20 min.
18.00	<b>J. W. Gary (Riverside, USA)</b> "Rapidity gaps in gluon jets"	20 min.
18.20	<b>N. Watson (Birmingham, UK)</b> "QCD and final state interactions at LEP"	20 min.
18.40	<b>J. Fuster (Valencia, Spain)</b> "Study of hard gluon radiation in $b$ final states and a determination of $m_b$ "	20 min.

*19.00 Dinner*

Thursday, September 12

Session VII. Low-x and Very High Multiplicity Physics

Conveners: E. Levin, J. Manjavidze and A. Sissakian

Chair: A. Sissakian

9.00	<b>J. Manjavidze (JINR/Tbilisi, Georgia)</b> "Low-x" physics"	40 min.
9.40	<b>V. Nikitin (JINR)</b> "Production of low energy direct photons in multiparticle hadronic interaction"	20 min.
10.00	<b>E. Kokoulina (Gomel, Belorussia)</b> "Analysis of multiparticle dynamics from two stage model at $e^+e^-$ annihilation into hadrons"	20 min.
10.20	<b>V. Ouvarov (Protvino, Russia)</b> "Study of charged multiplicity hadronic three jet events at LEP"	20 min.
10.40	<b>A. Malakhov (JINR)</b> "Selected problems of relativistic nuclear physics and multiple particle production"	20 min.

11.00 – 11.20 Coffee/tea break

Chair: J. Manjavidze

11.20	<b>A. Sissakian (JINR)</b> "Thermalization processes at high energy hadron collisions"	20 min.
11.40	<b>L. Jenkovszky (Kiev, Ukraine)</b> "On very high multiplicity distribution"	20 min.
12.00	<b>Yu. Kulchitsky (JINR)</b> "Possibility of energy correlators for VHM events study with ATLAS at LHC"	20 min.
12.20	<b>A. Baldin (JINR)</b> "Analysis of self-similar solutions and asymptotic properties of hadron production in relativistic nuclear collisions"	20 min.
12.40	<b>J. Gayler (DESY, Germany)</b> "Experimental approach to low x at HERA"	20 min.
13.00	<b>V. Bolotov (Moscow, Russia)</b> "The study multiparticles decays on "Istra+" setup at IHEP accelerator"	20 min.

13.20 – 15.00 Lunch



## Session VIII. Astroparticle Physics

*Convener: V. Kuzmin*

*Chair: I. Dremin*

15.00	<b>A. Kusenko (Los Angeles, USA)</b> <i>"Interactions of ultrahigh-energy neutrinos"</i>	20 min.
15.20	<b>E. Kuraev (JINR)</b> <i>"Disoriented chiral condensate: possible applications"</i>	20 min.
15.40	<b>G. Wilk (Warsaw, Poland)</b> <i>"Power-like abundance of elements in Universe"</i>	20 min.

## Summary

*Chair: G. Gustafson*

16.00	<b>A. Korytov (Experiment)</b>	40 min.
16.40	<b>V. Kuvshinov (Theory)</b>	40 min.

*Chair: A. Sissakian*

17.20	<b>Bo Anderson Awarding</b>	10 min.
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17.30	<b>CLOSING</b>	<b>A.N. Sissakian</b>
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**19.00 BANQUET**

**Friday, September 13**

**Departure**