XVIth International Workshop on High Energy Physics and Quantum Field Theory

Moscow, Russia, 6 - 12 September 2001

Organizer: Institute of Nuclear Physics, Moscow State University

Sponsors: Russian Ministry of Industry, Science and Technologies
Russian Foundation for Basic Research
Deutsches Elektronen-Synchrotron

UPDATED

SCIENTIFIC

PROGRAM

TIME TABLE:

PLENARY SESSION

10.00 - 10.50 Talk 1

10.50 - 11.40 Talk 2

11.40 - 12.10 *Coffee break*

12.10 - 13.00 Talk 3

PARALLEL SESSIONS A, B

15.00 - 15.20 Talk 1

15.20 - 15.40 Talk 2

15.40 - 16.00 Talk 3

16.00 - 16.40 *Coffee break*

16.40 - 17.00 Talk 4

17.00 - 17.20 Talk 5

17.20 - 17.40 Talk 6

17.40 - 18.00 Talk 7

18.00 - 18.20 Talk 8

WELCOME PARTY: *September 6, at 19.00 hrs.*

EXCURSION: *September 9.*

WORKSHOP DINNER: *September 11, at 19.00 hrs.*

September 6

PLENARY SESSION

Chairperson Victor Savrin

10.00 **Opening**
10.10 **Sutton Mark** (University of Oxford, ZEUS UK, DESY, Hamburg)
"α_s and the proton gluon distribution at HERA"
11.00 **Parashar Neeti** (Northeastern University, Fermilab, Batavia)
"The Run II D0 detector at the Fermilab Tevatron"
11.50 **Coffee break**
12.20 **Rosati Stefano** (University of Bonn, Bonn and OPAL)
"Standard Model and QCD measurements at OPAL"

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September 6

PARALLEL SESSION A

Chairperson Sergey Slabospitsky

15.00 **Beylin Vitaly** (Rostov State University, Rostov-on-Don)
"Singlet fermions as SUSY signals"
15.20 **Vologdin Alexander** (SINP MSU, Moscow)
"Excited leptons at the Fermilab Tevatron collider in Run 2"
15.40 **Boos Edward** (SINP MSU, Moscow)
"Search for graviton KK excitations in W-boson pair production at hadron colliders"
16.00 **Coffee break**
16.40 **Levchenko Boris** (SINP MSU, Moscow)
"Measurement of Phi(1020) meson production in neutral current deep inelastic scattering at HERA (on behalf ZEUS)"

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September 6

PARALLEL SESSION B

Chairperson Michael Mensky

15.00 **Slavnov Dmitry** (Moscow State University, Moscow)
"Quantum mechanics as the objective local theory"
15.20 **Tarasov Vasily** (SINP MSU, Moscow)
"Stationary states of non-Hamiltonian and dissipative quantum systems"
15.40 **Arbuzov Boris** (SINP MSU, Moscow)
"Composite Higgs in a dynamically broken electroweak theory"
16.00 **Coffee break**
16.40 **Mnatsakanova Melita** (SINP, MSU)
"Integral relations between real and imaginary parts of
a scattering amplitude as a tool for high energy predictions"

September 7

PLENARY SESSION

Chairperson Per Osland

10.00 **Cole Joanne** (University of Bristol and ZEUS/F1, DESY, Hamburg)
"Low-x Physics at HERA"
10.50 **Norton Peter** (Rutherford Appleton Laboratory, Chilton)
"ATLAS status and physics potential: an overview"
11.40 **Coffee break**
12.10 **Kapichine Mikhail** (JINR, Dubna)
"Diffraction at HERA"

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September 7

PARALLEL SESSION A

Chairperson Rudolf Faustov

15.00 **Krutov Alexander** (Samara State University Samara)
"Relativistic description of the new results on elastic
eD-scattering in Jefferson Lab"
15.20 **Golovach Evgeniy** (SINP MSU)
"Investigation of the high lying N* excitations in double charged pion
production by virtual photons"
15.40 **Anchishkin Dmitry** (BITP, Kiev)
"Intercept lambda behaviour in two-boson correletions"
16.00 **Coffee break**
16.40 **Afonin Sergei** (St. Petersburg State University, St. Petersburg)
"Meson Mass Splitting in U(3) Quasilocal Quark Model"
17.00 **Khruschev Viatcheslav** (Institute of the Physics of the Earth, Moscow)
"The universality of confining potential and the running of
the quasi-Coulombic potential strength in the independent-quark model"
17.20 **Ilyichev Alexander** (NC PHEP, Minsk)
"Next-to-leading quark mass effects in longitudinal polarized DIS"

September 7

PARALLEL SESSION B

Chairperson Igor Volobuev

15.00 **Osland Per** (Department of Physics, University of Bergen, Bergen)
"Gravity-induced bremsstrahlung"
15.20 **Smolyakov Mikhail** (Moscow State University, Moscow)
"Newtonian limit and light deflection in the Randall-Sundrum model"
15.40 **Kubyshin Yurii** (SINP,MSU, Moscow)
"Effective potential in a 5D model of the electroweak symmetry breaking"
16.00 **Rossikhin Anton** (Moscow State University, Moscow)
"Renormalization in the effective action for classical strings"
16.20 **Coffee break**
17.00 **Tsipenyuk Dmitry** (General Physics Institute, Moscow)
"Prediction about possible transformation of an electromagnetic fields
in gravitational field in a model of extended space and checking experiment"
17.20 **Okhrimenko Maxim** (INR RAS, Moscow)
"A theory of thin shells with orbiting constituents"

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September 8

PLENARY SESSION

Chairperson Edward Boos

10.00 **Schneider Mireille** (H1, CPPM - Marseille, France)
"Searches for new particles at HERA"
10.50 **Vachon Brigitte** (University of Victoria, Canada and LEP)
"Search for exotics and extra dimensions at LEP"
11.40 **Coffee break**
12.10 **Volobuev Igor** (SINP MSU, Moscow)
"Facts and fancies in the Randall-Sundrum model"

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September 8

PARALLEL SESSION A

Chairperson Martin Sachwitz

15.00 **Giokaris Nikos** (University of Athene)
"The mass of the top quark: Present and future"
15.20 **Dubinin Mikhail** (SINP MSU, Moscow)
"Single top at TESLA energies"
15.40 **Boos Edward** (SINP MSU, Moscow)
"Single top quarks"
16.00 **Sherstnev Alexander** (SINP MSU, Moscow)
"Spin correlations in single top production"
16.20 **Mauser Marcus** (Johannes Gutenberg University, Mainz)
"Polarized top decay into charged Higgs $t(\uparrow) \to H^+ + b$ at $O(\alpha_s)$"
16.40 **Coffee break**
17.00 **Ivanov Mikhail** (Joint Institute for Nuclear Research, Dubna)
"Relativistic description of double heavy hadrons"
17.20 **Kiselev Valeri** (IHEP, Protvino)
"Leptonic constants of heavy quarkonia in potential approach of NRQCD"
17.40 **Galkin Vladimir** (SCC RAS, Moscow)
"Exclusive B decays to excited mesons"
18.00 **Pakhomova Olga** (Samara State University, Samara)
"Bc-meson decays into orbitally excited charmonium states"
18.20 **Nikitin Nikolay** (SINP MSU, Moscow)
"The decay $B \to \rho\gamma$. Weak annihilation and axial anomaly contributions"
18.40 **Shro Oleg** (Samara State University)
"The leptonic decay constant of heavy-light meson in relativistic constituent model"

September 8

PARALLEL SESSION B

Chairperson Melita Mnatsakanova

15.00 **Tarasov Vasily** (SINP MSU)
"Weyl quantization and Lie-Jordal algebra"
15.20 **Shnir Yasha** (University of Cologne, Cologne)
"Color-flavor transformation for the special unitary group and application to lattice gauge theory"
15.40 **Vernov Yuri** (INR, RAN)
"On the problem of derivative dispersion relations validity"
16.00 **Coffee break**
16.40 **Gavrilik Alexandre** (BITP, Kiev)
"Quantum groups, hadron masses, and the Cabibbo mixing"
17.00 **Bento Luis** (University of Lisbon, Lisbon)
"Leptogenesis via collisions and lepton leaking to the hidden sector"
17.20 **Vernov Sergey** (SINP MSU)
"Construction of asymptotic solutions for the general Henon-Heiles system in nonintegrable cases"

September 10

PLENARY SESSION

Chairperson Ilya Ginzburg

10.00 **Gruwe Magali** (OPAL, CERN, Geneve)
"Search for Higgs and SUSY at LEP"

10.50 **Curtil Christian** (CPPM, Marseille and ALEPH, CERN)
"Search for SUSY at LEP"

11.40 **Coffee break**

12.10 **Faustov Rudolf** (SCC RAS, Moscow)
"Heavy quark potential and mass spectra of heavy mesons"

September 10

PARALLEL SESSION A

Chairperson Yoshimaza Kurihara

15.00 **Davydychev Andrei** (SINP MSU, Moscow)
"Hadronic corrections to the muon decay"
15.30 **Martynenko Alexei** (Samara State University, Samara)
"$O(\alpha^7)$ corrections to bound state energy levels in QED"
16.00 **Coffee break**
16.40 **Ginzburg Ilya** (Sobolev Institute of Mathematics, Novosibirsk)
"Possible discovery of odderon via study of charge asymmetry
in the diffractive photo production of pion pairs"
17.00 **Nesterenko Alexander** (JINR, Dubna)
"New analytic running coupling in QCD"
17.20 **Beylin Vitaly** (Rostov State University, Rostov-on-Don)
"On one-loop RG-analysis of SUSY SU(5) and E(6)-models"

September 10

PARALLEL SESSION B

Chairperson Yasha Shnir

15.00 **Koshelkin Andrey** (Moscow Institute for Physics and Engineering, Moscow)
"Two-particles Green's functions in non-equilibrium matter
and bremsstrahlung in a medium"

15.20 **Chernichenko Yury** (Gomel State Technical University)
"Relativistic inverse problem for a non-local separable quasipotential"

15.40 **Lukashevich Svetlana** (Gomel State University, Gomel)
"The description of the hadronic polarizabilities by covariant
properties of moving medium electrodynamics within
the phenomena Lagrangian approach"

16.00 **Silenko Alexander** (Institute of Nuclear Problems, Minsk)
"Interaction of spin-1 particle with electromagnetic field"

16.20 **Coffee break**

September 11

PLENARY SESSION

Chairperson Yakov Azimov

10.00 **Blyth Simon** (CERN)
"LEP results"
10.50 **Man'ko Vladislav** (RRC Kurchatov Institute, Moscow)
"Status of ALICE experiment on LHC"
11.40 **Coffee break**
12.10 **Pagliarone Carmine** (INFN, Pisa and CDF)
"Recent results from CDF and the status of CDF-II"

September 11

PARALLEL SESSION A

Chairperson Vadim Troitsky

15.00 **Deminov Mikhail** (Moscow State University, Moscow)
"New simple invariant regularization for Weinberg-Salam model"
15.20 **Kurihara Yoshimasa** (KEK, Tsukuba)
"Automatic calculation of NLO-QCD in GRACE"
15.40 **Arbuzov Boris** (SINP MSU, Moscow)
"Muon g-2 anomaly and extra interactions of the composite Higgs in the dynamically broken electroweak theory"
16.00 **Coffee break**
16.40 **Ginzburg Ilya** (Sobolev Institute of Mathematics, Novosibirsk)
"Two doublet Higgs model, SM-like scenario and resolving of models at photon colliders"
17.00 **Dolgopolov Mikhail** (Samara State University, Samara)
"MSSM CP even Higgs bosons interactions at high energies"
17.20 **Vychugin Mikhail** (Novosibirsk State University, Novosibirsk)
"Distinguishing Higgs models in SM-like scenario via $e\gamma \to eh$ process"
17.40 **Anipko Dmitry** (Novosibirsk State University)
"The gauge boson anomalous interactions via process $e\gamma \to W\nu$"

September 11

PARALLEL SESSION B

Chairperson Nikolai Zotov

15.00 **Alekhin Sergey** (IHEP, Protvino)
"The NNLO QCD PDFs"

15.20 **Kotikov Anatoly** (JINR, Dubna)
"The contribution of off-shell gluons to the structure functions F_2^c and F_L^c and the unintegrated gluon distributions"

15.40 **Kotikov Anatoly** (JINR, Dubna)
"A systematic study of QCD coupling constant from deep inelastic measurements"

16.00 **Coffee break**

16.40 **Baranov Sergey** (Lebedev Institute of Physics, Moscow)
"Highlights from the k_T-factorization approach on the J/ψ polarization puzzle"

17.00 **Saleev Vladimir** (Samara State University, Samara)
"Fragmentation and recombination production of doubly charmed baryons via charm exitation in proton"

17.20 **Lipatov Artem** (Moscow State University)
"Heavy quark production in the semihard QCD approach at TEVATRON and the unintegrated gluon distribution"

September 12

PLENARY SESSION

Chairperson Victor Savrin

10.00 **Sutton Mark** (University of Oxford, ZEUS UK, DESY, Hamburg)
Summary talk on experiment.

10.30 **Kaneko Toshiaki** and **Kurihara Yoshimaza** (KEK, Tsukuba)
Summary talk on phenomenology.

11.00 **Closing**