

Advanced Studies Institute on Symmetries and Spin July 8 - 14, 2007, Prague, Czech Republic

July 6, 2007 Friday 10:00 - 18:00 Student's Training

July 7, 2007 Saturday 10:00 - 18:00 Student's Training

July 8, 2007 Sunday

Registration

16:00-19:00 Campus Faculty of Mathematics and Physics Pelc-Tyrolka

July 9, 2007 Monday

Opening

09:00-09:10 Finger Miroslav (Charles Universtiy)

Session 1 Chairperson: Anatoly Efremov

09:10-09:30 Finger Miroslav (Charles University Prague & JINR, Dubna)
"Hadron structure and hadron spectroscopy"

09:30-10:30 Bai Mei (BNL)
"RHIC pp status and our plans for the future"

Coffee break 10:30-10:50

Session 2 Chairperson: Mei Bai

10:50-11:50 Barish Kenneth (University of California at Riverside)
"The PHENIX spin physics program"

11:50-12:50 Csernai Laszlo (University of Bergen)
"Collective Symmetries and Asymmetries in ultra-relativistic heavy ion collisions"

Lunch 13:00-14:00

Session 3 Chairperson: Kenneth Barish

14:00-15:00 Botta Elena (University of Torino)
"HPGe detectors for high resolution hypernuclear γ -ray spectroscopy"

15:00-16:00 Csernai Laszlo (University of Bergen) on behalf of
Alberico Wanda (INFN Torino)
"Strongly interacting matter in ultra-relativistic heavy-ion collisions"

Coffee break 16:00-16:20

Session 4 Chairperson: Laszlo Csernai

16:20-17:20 Crochet Philippe (Blaise Pascal University)
"The ALICE experiment at the LHC and the N3 DIMUONnet activity"

17:20-18:20 Ejiri Hiro (Osaka University & CTU, Prague)
"Overview of Majorana neutrino masses studied by double beta
decays"

Welcome party

18:30-21:00 Campus Faculty of Mathematics and Physics Pelc-Tyrolka

July 10, 2007 Tuesday

Session 5 Chairperson: Miroslav Finger

09:00-10:00 Klimaszewski Konrad (Soltan Institute for Nuclear Studies, Warsaw)
"DeltaG from high pT events at COMPASS"

10:00-10:30 Massmann Frank (University of Bonn)
"Measurement of transversity signals in two hadron production
at COMPASS"

10:30-11:00 Nikolaev Kirill (JINR, Dubna)
"The polarized Valence Quark Distribution from COMPASS"

Coffee break 11:00-11:20

Session 6 Chairperson: Hans-Wolfgang Siebert

11:20-11:50 Parsamyan Bakur (INFN, Torino)
"New target transverse spin dependent asymmetries from COMPASS"

11:50-12:20 Venugopal Girisan (University of Bonn)
"Collins and Sivers asymmetries on the deuteron from COMPASS data"

12:20-12:50 Finger Michael (Charles University Prague & JINR, Dubna)
"Solid state polarized targets for particle physics experiments"

Lunch 13:00-14:00

Session 7 Chairperson: Frank Massmann

**14:00-14:30 Nerling Frank (University of Freiburg)
"The COMPASS RICH-1 detector upgrade"**

**14:30-15:00 Polyakov Vladimir (IHEP, Protvino)
"Shashlik electromagnetic calorimeter for COMPASS experiment"**

**15:00-16:00 Burtin Etienne (Saclay)
"COMPASS prospects for GPDs measurement"**

Coffee break 16:00-16:20

Session 8 Chairperson: Alexander Prokofyev

**16:20-17:20 Avetisyan Eduard (DESY, Hamburg)
"Exclusive Physics from HERMES"**

**17:20-17:50 Koerner Juergen (University of Mainz)
"Helicity analysis of semileptonic hyperon decays including
lepton mass effects"**

**17:50-18:50 Pleiter Dirk (DESY, Hamburg)
"Hadronic structure from the lattice"**

**18:50-19:20 Kuraev Eduard (JINR, Dubna)
"Peripheral processes; Problem G(E)/G(M); Radiative Corrections to
beam asymmetry "**

July 11, 2007 Wednesday

Session 9 Chairperson: Oleg Teryaev

**09:00-10:00 Krisch Alan (University of Michigan)
"Hard Collisions of Spinning Protons: Past, Present and Future"**

**10:00-10:30 Eyser Oleg (UC Riverside, DESY)
"Transverse Spin Phenomena in PHENIX"**

**10:30-11:00 Liebing Patricia (RIKEN-BNL Research Center)
"Double Helicity Asymmetries from Phenix and what we can
learn from them"**

Coffee break 11:00-11:20

Session 10 Chairperson: Alan Krisch

11:20-11:50 Nakagawa Itaru (RIKEN)
"Polarization Measurement of Run05 Proton Beam at RHIC"

11:50-12:50 Chen Jian-Ping (JLab)
"Highlights and perspectives of JLab spin physics"

Lunch 13:00-14:00

Session 11 Chairperson: Oleg Selyugin

14:00-15:00 Trentalange Stephen (University of California at Los Angeles)
"Recent Results of the STAR Spin Physics Program in Polarized Proton-Proton Collisions at RHIC"

15:00-15:30 Gray Frederick (Regis University, Denver)
"Muon capture on the proton and deuteron"

17:00-20:00 Excursion to Carolinum and Concert of classical music

July 12, 2007 Thursday

Session 12 Chairperson: Hiro Ejiri

09:00-10:00 Lewitowitz Marek (GANIL)
"The SPIRAL2 Project"

10:00-11:00 Foehl Klaus (University of Edinburgh)
"The PANDA detector at the future FAIR laboratory"

Coffee break 11:00-11:20

Session 13 Chairperson: Vladimir Polyakov

11:20-11:50 Siebert Hans-Wolfgang (IKP, University of Mainz)
"The challenge of polarizations and correlations in hadronic hyperon production"

11:50-12:20 Prokofyev Alexander (PNPI, Gatchina)
"Two-pion production in αp scattering at 1 GeV/nucleon in the region of the $P_{11}(1440)$ resonance excitation"

12:20-12:50 Eyser Oleg (UC Riverside, DESY)
"Polarimetry at the ILC"

Lunch 13:00-14:00

Session 14 Chairperson: Eduard Avetisyan

- 14:00-14:30 Ilyichev Alexander (NSECPHP Belarusian State University, Minsk)
"Electric and magnetic static polarizability contribution to amplitude's imaginary part in doubly virtual Compton scattering of nucleon"
- 14:30-15:00 Silenko Alexander (Belarusian State University, Minsk)
"Foldy-Wouthuysen Transformation and Exact Description of Spin Dynamics in Strong External Fields"
- 15:00-15:30 Sharov Vasiliy (JINR, Dubna)
"Experimental results on ratio $R(dp)$ of the yields of elastic np charge exchange process on H₂ and D₂ targets at 0 degrees over 0.8 - 2.0 GeV region of neutron beam energy"
- 15:30-16: 00 Strunov Leonid (JINR, Dubna)
"Measurements of neutron-proton spin observables at 0 degrees using the highest energy polarized d,n probes"

Conference Banquet

19:00-23:00 "Dum techniku", Novotneho lavka.

July 13, 2007 Friday

Session 15 Chairperson: Jian-Ping Chen

- 09:00-10:00 Efremov Anatoly (JINR, Dubna)
"Sivers and Collins Single Spin Asymmetries"
- 10:00-11:00 Teryaev Oleg (JINR, Dubna)
"Effective Sivers function"

Coffee break 11:00-11:20

Session 16 Chairperson: Alexander Sidorov

- 11:20-11: 50 Liska Tomas (CUT, Prague)
"Mass Data Production on Clusters and GRID"
- 11:50-12:20 Goloskokov Sergey (JINR, Dubna)
"Diffractive vector meson electroproduction at small Bjorken x within GPD approach"

12:20-12:50 Arnold Simone (University of Bochum)
"Longitudinal single-spin asymmetries in proton-proton scattering with a hadronic final state"

Lunch 13:00-14:00

Session 17 Chairperson: Dmitri Fursaev

14:00-14:30 Sidorov Alexander (JINR, Dubna)
"Recent results on Polarized PDFs and Higher Twist"

14:30-15:00 Selyugin Oleg (JINR, Dubna)
"Analytic properties of different unitarization schemes"

15:00-15:30 Kolganova Elena (JINR, Dubna & University of Bonn)
"Ultracold scattering of He atoms"

15:30-16:00 Lyuboshitz Valery (JINR, Dubna)
"Spin correlations of muons in the process of electron-positron pair annihilation $e^+ e^- \rightarrow \mu^+ \mu^-$ "

Coffee break 16:00-16:20

Session 18 Chairperson: Naohito Saito

16:20-16:50 Fimushkin Victor (JINR, Dubna)
"Intensive source of polarized deuterons for Nuclotron"

16:50-17:20 Rukoyatkin Pavel (JINR, Dubna)
"Relativistic Nuclear Fragments Beams for emulsion experiments at Nuclotron"

17:20-17:40 Fursaev Dmitri (JINR, Dubna)
"The Education Programme of JINR"

17:40-18:00 Kurilkin Aleksey (JINR, Dubna)
"Measurement of the tensor and vector analyzing powers for the $dd \rightarrow 3Hp$ reaction at the energy 200 MeV"

18:00-18:20 Kurilkin Pavel (JINR, Dubna)
"Measurement of the vector and tensor analyzing powers in dp elastic scattering at the energy of 880 MeV"

18:20-18:40 Kiselev Anton (JINR, Dubna)
"Analyzing powers in the $^{12}C(d,p)^{13}C$ reaction at the energy $T_d=270$ MeV"

18:40-19:00 Chudoba Vratislav (JINR, Dubna & CTU, Prague)
"A study of two-neutron transfer reactions with ^8He and ^6He
projectile nuclei bombarding a gas target of tritium"

19:00-19:20 Silenko Alexander (Belarusian State University, Minsk)
"Manifestation of tensor magnetic polarizability of the deuteron in
storage-ring experiments"

July 14, 2007 Saturday

Session 19 Chairperson: Vaclav Vrba

09:00-9:50 Ejiri Hiro (Osaka University & CTU, Prague)
"Spectroscopic studies of neutrono-less double beta decays
and MOON"

09:50-10:50 Csorgo Tamas (KFKI Budapest)
"PHENIX Heavy Ion Physics Program"

Coffee break 10:50-11:10

Session 20 Chairperson: Viktor Fimushkin

11:10-12:10 Ueno Hideki (RIKEN)
"RI Beam Factory Project at RIKEN and Physics Programme
on this Facility"

12:10-13:10 Saito Naohito (KEK)
"J-PARC Project: current status and future prospects"

Session 21 Chairperson: Rafail Zulkarneev

13:10-14:00 Round Table Discussion

14:00-14:10 Closing

Lunch 14:20