

BEACH 2010 - IX International Conference on Hyperons, Charm and Beauty Hadrons



Report of Contributions

Contribution ID: 2

Type: **not specified**

Measurement of $BR(K \rightarrow e \nu)/BR(K \rightarrow \mu \nu)$ in NA62

Measurement of the helicity suppressed ratio of charged kaon leptonic decay rates $BR(K \rightarrow e \nu)/BR(K \rightarrow \mu \nu)$ has long been considered as an excellent test of lepton universality and the Standard Model (SM) description of weak interactions. It was realised recently that the suppression of the SM contribution might enhance the sensitivity to SUSY-induced effects to an experimentally accessible level. The NA62 experiment at the CERN SPS has collected a record number of over 10^5 $K \rightarrow e \nu$ decays during a dedicated run in 2007, aiming at achieving 0.5% precision. Experimental strategy, details of the analysis and preliminary results will be discussed.

Primary author: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Presenter: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Contribution ID: 3

Type: **not specified**

Measurement of the FCNC Decays $K^{+-} \rightarrow \pi^{+-} l^+ l^-$ in NA48

We report on measurements of the rare decays $K^{+-} \rightarrow \pi^{+-} e^+ e^-$ and $K^{+-} \rightarrow \pi^{+-} \mu^+ \mu^-$. The full NA48/2 data set was analyzed, leading to more than 7200 reconstructed events in the electronic and more than 3000 events in the muonic channel, the latter exceeding the total existing statistics by a factor of five. For both channels the selected events are almost background-free. From these events, we have determined the branching fraction and form factors of $K^{+-} \rightarrow \pi^{+-} e^+ e^-$ using different theoretical models. Our results improve the existing world averages significantly. In addition, we measured the CP violating asymmetry between K^+ and K^- in this channel to be less than a few percent.

Primary author: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Presenter: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Contribution ID: 4

Type: **not specified**

Measurement of $K_s \rightarrow \pi\pi e\bar{e}$ decay mode at NA48

The $K_S \rightarrow \pi\pi e\bar{e}$ decay mode has been investigated using the data collected in 2002 by the NA48/1 collaboration. With about 23k signal events and 59k $KL \rightarrow \pi^+ \pi^- \pi^0$ normalization decays, the $K_S \rightarrow \pi\pi e\bar{e}$ branching ratio was determined with respect to the KL one. This result is also used to set an upper limit on the presence of $E1$ direct emission in the decay amplitude. The CP-violating asymmetry has been also measured.

Primary author: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Presenter: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Contribution ID: 5

Type: **not specified**

Precision Measurement of pi pi Scattering Lengths in Ke4 Decays at NA48

The measurement of the S-wave pi pi scattering lengths is a fundamental test of the validity of Chiral Perturbation Theory. We report on the final NA48/2 result, which uses the complete NA48/2 data set with more than a million reconstructed Ke4 decays. From these events we have determined the decay form factors and pi pi scattering lengths $a_{0,0}$ and $a_{2,0}$. The result is the most precise measurement of the scattering lengths and in excellent agreement with the prediction of Chiral Perturbation Theory.

Primary author: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Presenter: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Contribution ID: 6

Type: **not specified**

Precision Measurement of Photon Emission in $K^{+-} \rightarrow \pi^{+-} \pi^0 \gamma$ Decays at NA48

We report our final result on the measurement of direct photon emission (DE) in the decay $K^{+-} \rightarrow \pi^{+-} \pi^0 \gamma$ and its interference (INT) with the inner bremsstrahlung amplitude. For this measurement the full NA48/2 data set with about 600k reconstructed $K^{+-} \rightarrow \pi^{+-} \pi^0 \gamma$ decays was analyzed, which is factor of 30 larger than for previous experiments and a factor of three w.r.t. our preliminary result. From this, the sizes of both the DE and the INT amplitudes have been measured with high precision, with the INT amplitude being observed for the first time. In addition, a measurement of the CP violating asymmetry between K^+ and K^- has been obtained.

Primary author: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Presenter: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Contribution ID: 7

Type: **not specified**

Measurement of the rare Decay $K^{+-} \rightarrow \pi^{+-} \gamma \gamma$ at NA48

We report on the measurement of the branching fraction of the rare decay $K^{+-} \rightarrow \pi^{+-} \gamma \gamma$ using the full NA48/2 dataset of more than 5000 reconstructed decays from the full NA48/2 data set.

From the spectrum of the invariant $\gamma \gamma$ mass, the decay parameter c^{\wedge} can be extracted with unprecedented precision.

Primary author: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Presenter: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Contribution ID: 8

Type: **not specified**

Measurement of the radiative Decay $K^{+-} \rightarrow \pi^0 e^{+-} \nu_e \gamma$ at NA48

We report on the measurement of more than 200000 events of the decay $K^{+-} \rightarrow \pi^0 e^{+-} \nu_e \gamma$, recorded with the NA48/2 detector at CERN. These statistics, about two orders of magnitude more than previous experiments, allow measurements of the decay rate and of possible CP violation in this decay with per cent precision.

Primary author: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Presenter: Dr LAZZERONI, Cristina Lazzeroni (University of Birmingham)

Contribution ID: 12

Type: **not specified**

Registration

Contribution ID: **13**

Type: **not specified**

Registration

Contribution ID: 14

Type: **not specified**

Coffee Start and Registration

Summary

The registration desk will be available in “Aula 5”, adjacent to the Aula Magna. Coffee will be served from 9:00 to 10:00.

Registration will continue throughout the morning, up to 12:30.

Contribution ID: 15

Type: **not specified**

Opening Remarks and Welcome to BEACH2010 Participants

Monday, 21 June 2010 10:00 (20 minutes)

Presenters: Prof. PIERETTI, Antonio (University of Perugia, Deputy Rector); Prof. ELISEI, Fausto (Faculty of Sciences, Dean); Dr LUBRANO, Pasquale (INFN Perugia Department, Director)

Session Classification: Opening Session

Contribution ID: 16

Type: **not specified**

Perugia through words and pictures

Monday, 21 June 2010 10:20 (40 minutes)

Primary author: Prof. NUCCIARELLI, Franco Ivan (Faculty of Humanities, University of Perugia)

Presenter: Prof. NUCCIARELLI, Franco Ivan (Faculty of Humanities, University of Perugia)

Session Classification: Opening Session

Contribution ID: 17

Type: **not specified**

Status of LHC

Monday, 21 June 2010 11:45 (45 minutes)

Primary author: Dr BERTOLUCCI, Sergio (CERN, Geneva and INFN, LNF)

Presenter: Dr BERTOLUCCI, Sergio (CERN, Geneva and INFN, LNF)

Session Classification: Opening Session

Contribution ID: **18**

Type: **not specified**

Concluding Remarks

Contribution ID: **19**

Type: **not specified**

Concluding Talk 1

Contribution ID: 20

Type: **not specified**

Concluding Talk 2

Contribution ID: **21**

Type: **not specified**

Coffee Break

Contribution ID: 22

Type: **not specified**

Summary Talk

Primary author: Prof. NAKADA, Tatsuya (Ecole Polytechnique Federale de Lausanne (EPFL))

Presenter: Prof. NAKADA, Tatsuya (Ecole Polytechnique Federale de Lausanne (EPFL))

Contribution ID: 23

Type: **not specified**

The perfect opaque fluid at RHIC

I will give an overview of the current status of heavy ion physics, focusing on the low viscosity and high heavy quark opacity observed at RHIC. I will argue that these findings are generally incompatible with pQCD calculations, and examine the way in which methods based on gauge-string duality (AdS/CFT) can be quantitatively constrained by a joint analysis of hadronic flow and heavy quark suppression data.

This talk is based on <http://arxiv.org/abs/0906.4099>

and the general review at <http://arxiv.org/abs/0911.5479>

Primary author: TORRIERI, Giorgio (JW Goethe Universitat, Frankfurt)

Presenter: TORRIERI, Giorgio (JW Goethe Universitat, Frankfurt)

Contribution ID: 24

Type: **not specified**

Recent Results in Precision Neutrino Physics

We present a review of recent results in precision measurements of the Standard Model cross-sections and parameters in neutrino physics. The topics include production of exclusive mesons, quasi-elastic scattering, and the inclusive neutrino-nucleon cross sections.

Primary author: Prof. MISHRA, Sanjib (University of South Carolina, Columbia, SC (USA))

Presenter: Prof. MISHRA, Sanjib (University of South Carolina, Columbia, SC (USA))

Contribution ID: 25

Type: **not specified**

Studies of open charm and charmonium production at LHCb

The first heavy flavour measurements at LHCb will concern open charm and J/ψ production. Charm hadrons will be reconstructed in modes such as $D^0 \rightarrow K\pi$ and $D^\pm \rightarrow K\pi\pi$ and their inclusive production observed in the forward region covered by LHCb. The inclusive J/ψ production cross section will be measured with the decay mode $J/\psi \rightarrow \mu\mu$, as a function of the J/ψ rapidity y and transverse momentum p_T , in the region $3 < y < 5$ and $p_T < 7\text{-GeV}/c$. Contributions of J/ψ from b-hadron decays will be separated from prompt J/ψ produced directly in the pp collisions or in the decays of heavier prompt states, and the production polarisation of the prompt J/ψ component will be determined. First experiences from the 2010 LHC run will be reported, and the status of the measurements will be reviewed.

Primary author: PEPE ALTARELLI, Monica (CERN)

Presenter: PEPE ALTARELLI, Monica (CERN)

Contribution ID: 26

Type: **not specified**

Minimum bias physics at LHCb

First pp collisions at $\sqrt{s} = 0.9$ and 7 TeV have been recorded by the LHCb detector using a minimum bias trigger. These data are very valuable to commission the detector and trigger algorithms, but will also be used to perform a number of interesting minimum bias physics measurements, in the forward region covered by the LHCb detector (polar angles between 15 and 300 mrad), amongst which measurements of the prompt Kshort, Lambda, anti-Lambda, proton, anti-proton production cross sections, as well as of the Lambda transverse polarization. The motivations, ingredients and status of such measurements will be discussed, and preliminary results shown where available.

Primary author: PEPE ALTARELLI, Monica (CERN)

Presenter: PEPE ALTARELLI, Monica (CERN)

Contribution ID: 27

Type: **not specified**

Search for New Physics in Heavy Quark Decays at LHCb

LHCb is an experiment designed to search for evidence of new physics effects through precise measurements of decays of B and D mesons.

Already with the early data from the first LHC running it is possible to assess the performance of the detector and to understand better the potential of the LHCb flavour programme.

Highlights of these early data will be presented and the physics reach of LHCb in certain key CP-violation and rare decay measurements will be discussed. Emphasis will be given to those topics where results with particular sensitivity to new physics are expected during the present 2010-11 run.

Primary author: PEPE ALTARELLI, Monica (CERN)

Presenter: PEPE ALTARELLI, Monica (CERN)

Contribution ID: 28

Type: **not specified**

Target mass corrections for polarized structure functions

Polarized deep inelastic scattering (DIS) data are analyzed in leading and next-to-leading order of QCD within the common 'standard' scenario of polarized parton distributions. Due to recent high precision measurements in COMPASS we also present an updated, more accurate, version of our calculations. We perform a global fit to the existing data including mass corrections and we study the effect of these corrections on physically interesting quantities. We conclude that mass corrections are generally small, and compatible with current estimates of higher twist uncertainties, when available.

Primary author: Mrs TAHERI MONFARED, Sara (Semnan university)

Co-author: Prof. KHORRAMIAN, Ali (IPM and Semnan university)

Presenter: Mrs TAHERI MONFARED, Sara (Semnan university)

Contribution ID: 29

Type: **not specified**

R_{AA} of charm quarks at RHIC and LHC

We estimate nuclear modification factor R_{AA} at more forward rapidities of charm quarks/antiquarks produced from the initial fusion of partons in a nuclear collision, taking in to account the shadowing effect for nucleus-nucleus collision as well as the energy loss suffered by them while passing through Quark Gluon Plasma.

Summary

Charm quarks/antiquarks are expected to be produced at the initial fusion of the ultrarelativistic heavy-ion collisions. Just after the production, they will propagate through the quark gluon plasma and will lose energy by colliding with quarks and gluons and radiating gluons.

We have considered DGLV [1], ASW [2] and XDZR [3] formalisms for the calculation of medium-induced radiative energy loss and BT [4], PP [5] and Bjorken [6] formalisms for the calculation of collisional

energy loss. The shadowing effect is introduced by using EKS 98 parameterization for structure functions [7].

For charm quark energy loss at Pb+Pb collision @ 5.5A TeV, we see that once p_T is of the order of 10 GeV or more the radiative energy loss dominates over the collisional energy loss. But at Au+Au collision @ 200A GeV, radiative energy loss predicted by ASW formalism dominates over collisional energy loss after $p_T=5$ GeV or more. R_{AA} is calculated considering PP formalism for collisional energy loss and DGLV and ASW formalisms for radiative energy loss. At forward rapidities R_{AA} of charm quarks/antiquarks shows more suppression at Pb+Pb collision @ 5.5A TeV but less suppression at Au+Au collision @ 200A GeV.

More suppression is observed when going from RHIC energy to LHC energy.

References:

- [1] M. Djordjevic and M. Gyulassy, *npa* **{\bf 733}** 265 (2004).
- [2] N.Armento, C. A. Salgado, and U. A. Wiedemann, *prd* **{\bf 69}**, 114003 (2004).
- [3] W.C.Xiang, H. T. Ding, D. C. Zhou, and D. Rohrlich, *epja* **{\bf 25}**, 75 (2005).
- [4] E.Braaten and M.H.Thoma, *prd* **{\bf 44}**, 2625 (1991).
- [5] S.Peigne and A.Peshier, *prd* **{\bf 77}**, 114017 (2008).
- [6] J.D.Bjorken,FERMILAB-PUB-82/059-THY(1982).
- [7] K. J. Eskola, V.J. Kolhinen, and C.A. Salgado, *epjc* **{\bf 9}** 61 (1999).

Primary author: Dr UMME JAMIL, Begum (Variable Energy Cyclotron Centre, Kolkata)

Co-author: Dr SRIVASTAVA, Dinesh K. (Variable Energy Cyclotron Centre, Kolkata)

Presenter: Dr UMME JAMIL, Begum (Variable Energy Cyclotron Centre, Kolkata)

Contribution ID: 30

Type: **not specified**

Hadronic B decays at Belle

Belle experiment has accumulated more than 500 million $B\bar{B}$ -bar pairs at Upsilon(4S). B-mesons decay to hadrons in various decay modes and these provide valuable opportunities to study hadronic interactions, properties of hadrons, and heavy flavor physics.

We report recent Belle results on hadronic B decays into vector-vector mesons, charmed mesons and baryons.

Primary author: Prof. SAKAI, Yoshihide (KEK)

Presenter: Prof. SAKAI, Yoshihide (KEK)

Contribution ID: 31

Type: **not specified**

Results on CKM and CP violation at Belle

The Belle experiment has measured various quantities of the Unitarity Triangle of CKM quark-mixing matrix, including its angles and sides. The precise measurements of these quantities provides the check of the Standard Model and also are sensitive to the New Physics effects. The recent results on these measurements and current status on New Physics effects are reported.

Primary author: Prof. SAKAI, Yoshihide (KEK)

Presenter: Prof. SAKAI, Yoshihide (KEK)

Contribution ID: **32**

Type: **not specified**

Belle Hot topics

We report recent and interesting results from Belle experiment which are not covered by other two Belle talks.

Primary author: Prof. SAKAI, Yoshihide (KEK)

Presenter: Prof. SAKAI, Yoshihide (KEK)

Contribution ID: 41

Type: **not specified**

Status and Prospects of SuperKEKB and Belle II

We report on the status and plan of the upgrade of the KEK B-factory accelerator, SuperKEKB, with the goal of instantaneous luminosity of $8 \times 10^{35} \text{ cm}^{-2} \text{ s}^{-1}$, which is about 40 times higher than current KEKB. Together with the accelerator, the Belle detector will be upgraded as well ("Belle II"), with significant improvements to increase its background tolerance as well as improving its physics performance. The prospects of physics achievements at SuperKEKB and Belle II are also reported.

Primary author: Prof. SAKAI, Yoshihide (KEK)

Presenter: Prof. SAKAI, Yoshihide (KEK)

Contribution ID: 42

Type: **not specified**

Pion Production in the HARP/PS214 experiment at CERN PS

Final results for the production of charged forward pions in the angular range $0.025 < \theta < 0.250$ rad and in the momentum range $0.5 < p < 8.0$ GeV/c will be presented together with final results for the production at large angles $0.35 < \theta < 2.15$ rad and in the momentum range $100 < p < 800$ MeV/c. Data have been taken with incident protons or pions in the range 1.5-15 GeV/c with thin Be, C, Al, Cu, Sn, Ta, Pb solid targets, with thick (1 interaction length) C, Ta, Pb solid targets (large angle production) and with N₂, O₂ cryogenic targets with the large acceptance HARP experiment at CERN PS. For incident pions the presented data represent the first experimental campaign to systematically measure forward pion hadroproduction. Results have been compared with GEANT4 and MARS MonteCarlo simulations and parametrized (for incident protons) for easy use. The results may be useful for simulation of existing neutrino beamlines, atmospheric neutrinos fluxes, extensive air shower (by reducing the uncertainties of hadronic interaction models in the low energy range), for the tuning of available QCD inspired Monte Carlo simulations and for simulation of future Neutrino Factory beamlines.

Summary

Final results for the production of charged forward pions in the angular range $0.025 < \theta < 0.250$ rad and in the momentum range $0.5 < p < 8.0$ GeV/c will be presented together with final results for the production at large angles $0.35 < \theta < 2.15$ rad and in the momentum range $100 < p < 800$ MeV/c. Data have been taken with incident protons or pions in the range 1.5-15 GeV/c with thin Be, C, Al, Cu, Sn, Ta, Pb solid targets, with thick (1 interaction length) C, Ta, Pb solid targets (large angle production) and with N₂, O₂ cryogenic targets with the large acceptance HARP experiment at CERN PS. For incident pions the presented data represent the first experimental campaign to systematically measure forward pion hadroproduction. Results have been compared with GEANT4 and MARS MonteCarlo simulations and parametrized (for incident protons) for easy use. The results may be useful for simulation of existing neutrino beamlines, atmospheric neutrinos fluxes, extensive air shower (by reducing the uncertainties of hadronic interaction models in the low energy range), for the tuning of available QCD inspired Monte Carlo simulations and for simulation of future Neutrino Factory beamlines.

Primary author: MEZZETTO, Mauro (PD)

Presenter: MEZZETTO, Mauro (PD)

Contribution ID: 43

Type: **not specified**

Measuring KS and KL lifetimes at KLOE

A phi-factory offers the possibility to select pure kaon beams:

neutral kaons from $\phi \rightarrow K_S K_L$ are in fact produced in pairs and

the detection of a K_S (K_L) tags the presence of a K_L (K_S).

This allows to perform precise measurement of kaon properties.

We are presently finalizing new determinations of the K_L and K_S lifetimes

using the whole KLOE data set, consisting of more than 10^9 $\phi \rightarrow K_S K_L$ decays. Both determinations benefit from a precise knowledge of kaon momenta.

The K_L lifetime, which has been already measured by KLOE with 0.6% accuracy

using 20% of the total data sample (PLB 626, 2005, 15), will be extracted from

the proper time distribution of $K_L \rightarrow 3\pi^0$ decays, tagged by a $K_S \rightarrow \pi^+\pi^-$

decay on the opposite hemisphere of the apparatus.

A competitive measurement of the K_S lifetime is obtained from the

proper time distribution of $K_S \rightarrow \pi^+\pi^-$ decays.

Primary author: Dr DE LUCIA, Erika (LNF)

Co-author: KLOE, Collaboration (LNF-INFN)

Presenter: KLOE, Collaboration (LNF-INFN)

Contribution ID: 45

Type: **not specified**

The KLOE-2 experiment at DAFNE upgraded in luminosity

The KLOE experiment at the DAFNE e+e- collider of the Frascati Laboratories of INFN is going to start a second data-taking campaign (KLOE-2). The detector has been upgraded with small angle electron taggers, while the insertion near the interaction point of an inner tracker is planned for the next year.

The interaction region of DAFNE has been modified using a crabbed waist scheme. It has been successfully

tested and an improvement in luminosity of about a factor 3 is expected.

The KLOE-2 scientific program aims to further improve the experimental studies on kaon and low energy hadron physics, e.g. CKM unitarity and Lepton universality, CPT symmetry and quantum mechanics, low energy QCD, gamma-gamma physics, the contribution of hadron vacuum polarization to muon anomalous moment.

Primary author: Dr DE LUCIA, Erika (LNF)

Co-author: KLOE, Collaboration (LNF-INFN)

Presenter: KLOE, Collaboration (LNF-INFN)

Contribution ID: 46

Type: **not specified**

Charmonium results from BESIII

We present the recent results on charmonium spectroscopy and charmonium decays based on a data sample of 106M ψ' recorded with the BESIII detector at BEPCII. The report includes:

- 1, The first measurement of the transition rates of $\psi' \rightarrow \pi^0 h_c$, $h_c \rightarrow \gamma \eta_c$, and improved measurements of the mass and width of the h_c ;
- 2, Study of $\chi_{cJ} \rightarrow VV$, with VV being $\phi\phi$, $\omega\omega$, and $\omega\phi$, $\chi_{cJ} \rightarrow \omega\phi$ as well as $\chi_{c1} \rightarrow \omega\omega$ and $\phi\phi$ are first observations;
- 3, Improved measurements of the branching fractions of χ_{cJ} decays into two neutral pseudoscalar meson pairs, including $\chi_{c0,2} \rightarrow \pi^0\pi^0$ and $\chi_{c0,2} \rightarrow \eta\eta$.

Primary author: ZHANG, Jingzhi (IHEP)

Presenter: ZHANG, Jingzhi (IHEP)

Contribution ID: 47

Type: **not specified**

Recent results on light hadron spectroscopy at BES

With 58M J/ψ events at BESII, an anomalous enhancement, $X(1860)$, near the mass threshold in the $p\bar{p}$ invariant mass spectrum from $J/\psi \rightarrow \gamma p\bar{p}$ decays was reported. And a resonance named $X(1835)$ is also observed in $\eta'\pi^+\pi^-$ invariant mass spectrum from $J/\psi \rightarrow \gamma\eta'\pi^+\pi^-$. Whether $X(1860)$ and $X(1835)$ are the same resonance or not needs further confirmation.

With 100M $\psi(2S)$ events collected at BESIII, the $p\bar{p}$ threshold enhancement $X(1860)$ is confirmed in the decays of

$\psi(2S) \rightarrow \pi^+\pi^- J/\psi$, $J/\psi \rightarrow \gamma p\bar{p}$. The

mass and width of $X(1860)$ are consistent with those from BESII

data. It is also confirmed in $J/\psi \rightarrow \gamma p\bar{p}$ with 200M

J/ψ data sample.

The decays of $J/\psi \rightarrow \gamma\eta'\pi^+\pi^-$ are examined too.

The resonance $X(1835)$

is confirmed with a much higher statistical significance. We also study

the isospin breaking process $J/\psi \rightarrow \phi f_0(980)$ for the

study of $a_0(980)$ and $f_0(980)$ mixing. The preliminary results are presented.

Primary author: JI, Xiaobin (Institute of High Energy Physics, CAS, Beijing)

Presenter: JI, Xiaobin (Institute of High Energy Physics, CAS, Beijing)

Contribution ID: 48

Type: **not specified**

Kaon-nucleon/nuclei interaction studies by kaonic atoms measurements (the SIDDHARTA experiment at DAFNE)

The SIDDHARTA experiment (Silicon Drift Detector for Hadronic Atom Research by Timing Application) had the aim to perform a precise measurement of K-series kaonic hydrogen x-rays and the first-ever measurement of the kaonic deuterium x-rays to determine the strong-interaction energy-level shifts and widths of the lowest lying atomic states.

These measurements offer a unique possibility to precisely determine the isospin-dependent kaon nucleon(KN) scattering lengths which are directly connected with the physics of the KN interaction.

The experiment combined the excellent low-energy kaon beam generated at DAFNE, allowing to use gaseous targets, with excellent fast X-rays detectors: Silicon Drift Detectors. SIDDHARTA was installed on DAFNE in autumn 2008 and took data till late 2009.

Apart of the kaonic hydrogen and kaonic deuterium measurements, we have performed the kaonic helium transitions to the 2p level (L-lines) measurements: for the first time in a gaseous target for He4 and for the first time ever for KHe3.

In this talk, an overview of this experiment and recent results will be presented, together with future plans.

Primary author: SIRGHI, Diana Laura (LNF)

Presenter: SIRGHI, Diana Laura (LNF)

Contribution ID: 49

Type: **not specified**

Kaon-nuclei interaction studies at low energies (the AMADEUS experiment)

The AMADEUS experiment [1,2] aims to perform dedicated precision studies in the sector of low-energy kaon-nuclei interaction at the DAFNE collider at LNF-INFN. In particular, the experiment plans to perform measurements of the so-called (very debated) deeply bound kaonic nuclei and, if existent, to measure their properties (binding energies and widths) by using the process of stopped kaons in cryogenic gaseous targets (He3 and He4). AMADEUS will measure all particles coming from negative kaons stopped in these targets, so performing a full study of various interaction channels. Other important measurements proposed by AMADEUS are the low-energy interaction studies of negative kaons in various targets. The kaon beam is ideal (low-energy kaons from the phi-decay at DAFNE) and the setup, an implementation in the central region of the KLOE detector with dedicated additional items, is having very good performances (high acceptance and capacity to measure charged and neutral particles with excellent resolution).

The results of AMADEUS will give a boost to the sector of non-perturbative QCD in the strangeness sector.

The physics program, preliminary results from analysis of KLOE data and future plans will be presented.

[1] AMADEUS Letter of Intent, {http://www.lnf.infn.it/esperimenti/siddharta/LOI_AMADEUS_March2006.pdf}

[2] The AMADEUS collaboration, LNF preprint, LNF-07/24(IR) (2007).

Primary author: Mr PISCICCHIA, Kristian (LNF INFN)

Presenter: Mr PISCICCHIA, Kristian (LNF INFN)

Contribution ID: 50

Type: **not specified**

New measurement of the Bs mixing phase at the Tevatron

Primary author: Dr CHIARELLI, Giorgio (PI)

Presenter: Dr CHIARELLI, Giorgio (PI)

Contribution ID: 51

Type: **not specified**

Heavy Flavor Properties at CDF

Large production rates, efficient triggers, a precise tracker, and mature analysis techniques make CDF a major player in the study of properties of heavy flavored particles. In this review of recent results we report studies of exotic XYZ states and world-leading measurements of B hadron lifetimes and charm baryon masses.

Primary author: Dr CHIARELLI, Giorgio (PI)

Presenter: Dr CHIARELLI, Giorgio (PI)

Contribution ID: 52

Type: **not specified**

Search for non-standard model physics in rare decays at the Tevatron

Quantities related to B decays that are strongly suppressed in the standard model may provide early indications of non-SM physics. CDF has the world's largest heavy flavor samples and can explore rare decays with unprecedented sensitivity. We present the first observation of $B0_s \rightarrow \phi\mu^+\mu^-$ decays (the rarest $B0_s$ decays observed), a measurement of forward-backward asymmetry in $B0 \rightarrow K^*\mu^+\mu^-$ competitive with world-leading results, and the first measurement of polarization amplitudes in $B0_s \rightarrow \phi\phi$ decays.

Primary author: Dr CHIARELLI, Giorgio (PI)

Presenter: Dr CHIARELLI, Giorgio (PI)

Contribution ID: 53

Type: **not specified**

Contribution of the MVD to the charm spectroscopy at PANDA

The Micro-Vertex-Detector (MVD) is the innermost detector of the PANDA experiment, one of the key projects at the future FAIR facility in Darmstadt.

In particular, the experiment is designed to render possible precision spectroscopy in the charmonium sector. This includes the study of open-charm mesons and baryons, charmonia and exotic states.

The distance of the innermost MVD layers to the nominal primary interaction vertex will be 20 mm only. A high vertex resolution of better than 100 μm can be achieved allowing a proper separation of secondary vertices of short-lived particles, e.g. D-mesons, from the primary interaction vertex. Furthermore, the information of the first hit points in the MVD improves the momentum resolution significantly. The impact of these features on the PANDA physics program in the charm sector will be presented including the reconstruction of charmed mesons and possibly exotic states such as the X(3872). Due to the implementation of a detailed detector model in the physics simulation the impact of a realistic material budget on the physics performance is included.

The work was supported by EU Dirac FP6 and BMBF.

Primary author: Mr WÜRSCHIG, Thomas (HISKP, Uni Bonn)

Co-authors: Mr ZAUNICK, Hans-Georg (HISKP, Uni Bonn); Prof. BRINKMANN, Kai-Thomas (HISKP, Uni Bonn); Mr MERTENS, Marius C. (IKP, FZ Jülich); Mr KLIEMT, Ralf (HISKP, Uni Bonn); Mr JÄKEL, René (TU Dresden); Mr BIANCO, Simone (HISKP, Uni Bonn); Mr STOCKMANN, Tobias (IKP, FZ Jülich)

Presenter: Mr WÜRSCHIG, Thomas (HISKP, Uni Bonn)

Contribution ID: 54

Type: **not specified**

A New High-Sensitivity Muon-Electron Conversion Search at Fermilab

Mu2e will search for coherent, neutrino-less conversion of muons into electrons in the field of a nucleus, with

a sensitivity improvement of a factor of 10,000 over existing limits.

Such a lepton flavor-violating reaction probes new physics at a scale unavailable by direct searches at either present or planned high energy colliders. The physics motivation for Mu2e will be presented, as well as the design of the muon beamline and spectrometer. A scheme by which the experiment can be mounted in the present Fermilab accelerator complex will be described. Prospects for increased sensitivity from the Project X linac that is being proposed by Fermilab will be discussed.

Primary authors: Dr KUTSCHKE, Rob (Fermilab); Dr BERNSTEIN, Robert Bernstein (Fermilab)

Presenter: Dr KUTSCHKE, Rob (Fermilab)

Contribution ID: 55

Type: **not specified**

Recent CP Violation and CKM Results from BABAR

We report on a variety of recent studies of CP violation using data collected with the Babar detector at the SLAC e^+e^- asymmetric collider B-factory operating on the Upsilon(4S). These include measurements associated with the angles of the unitarity triangle of the Cabibbo-Kobayashi-Maskawa quark mixing matrix as well as searches for CP violation in charm decays. Babar measurements of the CKM elements will also be presented with a focus on recent measurements of $|V_{ub}|$.

Primary author: Prof. RONEY, Michael (University of Victoria)

Co-author: TBD, TBD (TBD)

Presenter: TBD, TBD (TBD)

Contribution ID: 56

Type: **not specified**

Quarkonium Studies at Babar

We report on a number of measurements of charmonium and charmonium-like states using data collected by the Babar detector at the SLAC $e+e-$ asymmetric collider B-factory. Recent results from the analysis of data collected at the Upsilon(2S) and Upsilon(3S) will also be presented.

Primary authors: Prof. RONEY, Michael (University of Victoria); TBD, TBD (TBD)

Presenter: TBD, TBD (TBD)

Contribution ID: 57

Type: **not specified**

Searches for New Physics at BaBar

We report on searches for new physics in the data collected by the Babar detector at the SLAC e^+e^- asymmetric collider B-factory. These include searches in rare B, charm and tau decays and in searches for non-standard decays of the Upsilon(2S) and Upsilon(3S).

Primary authors: Prof. RONEY, Michael (University of Victoria); TBD, TBD (TBD)

Presenter: TBD, TBD (TBD)

Contribution ID: 59

Type: **not specified**

Lepton flavour violation search with $\mu \rightarrow e + \gamma$ decay: The MEG experiment

The MEG experiment started to search for $\mu \rightarrow e + \gamma$ decay, which is strictly forbidden in Standard model, while new theories, such as super symmetric grand unified theory and seesaw model of neutrinos, predict observable branching ratio just below the current upper limit. This talk reviews the result of the initial three months of operation of the MEG experiment in 2008 and some latest news.

Primary author: Mr NATORI, Hiroaki (Univ. of Tokyo)

Presenter: Mr NATORI, Hiroaki (Univ. of Tokyo)

Contribution ID: 64

Type: **not specified**

Particle production and fragmentation at HERA

The electron proton collisions at HERA provide an unique test-bed for models of particle production, fragmentation and also for spectroscopy. Data collected during HERA II period reached full precision due to refined calibrations and conceptual improvements in the reconstruction. The results obtained recently include measurements on scaled momentum distributions of charged particles, which can be compared with similar studies at e^+e^- colliders. For the first time a significant charge particle asymmetry has been measured in events at high Q^2 , in agreement with the expectations from valence quarks contributions at large fractional momentum. The production of strange particles allows to test models of flavor-dependent fragmentation. The production of exotic particles (including pentaquarks) has been investigated including the full statistics.

Primary author: Dr DIACONU, Cristinel (Centre de Physique des Particules de Marseille and DESY)

Presenter: Dr DIACONU, Cristinel (Centre de Physique des Particules de Marseille and DESY)

Contribution ID: 65

Type: **not specified**

Production of heavy flavors in ep collisions at HERA

The production of hadrons containing a heavy quark is one of the most sensitive test of QCD. At HERA, besides the investigation of production models incorporating multi-scale dependence, the production of heavy flavored hadrons is used to constrain the parton distribution functions, with important implications for LHC physics. Recent measurements by H1 and ZEUS experiments have been obtained using the HERA II data set and various tagging techniques (leptons, lifetime) for both photo-production and deep-inelastic scattering. The results are in agreement with theoretical calculations. The DIS data have been combined recently to obtain a precise determination of the charm content of the proton and the impact of the combined data on the parton distribution functions have been investigated.

Primary author: Dr DIACONU, Cristinel (Centre de Physique des Particules de Marseille and DESY)

Presenter: Dr DIACONU, Cristinel (Centre de Physique des Particules de Marseille and DESY)

Contribution ID: 66

Type: **not specified**

Production and polarization of Lambda and Lambda-bar hyperons in Deep-Inelastic Scattering at COMPASS

Lambda and Lambda-bar hyperons were produced at the COMPASS experiment at CERN, using Deep-Inelastic Scattering (DIS) of 160 GeV/c polarized muons on a longitudinally polarized target.

The study of Lambda and Lambda-bar hyperons in DIS is important for the understanding of the nucleon structure, the mechanisms of hyperon production and the hyperon spin structure. In particular, it may provide valuable information on the unpolarized strange quark distributions $s(x)$ and $s\text{-bar}(x)$ in the nucleon.

The data sample contains about 70 000 Lambda and 42 000 Lambda-bar. Large and comparable statistics on both Lambda and Lambda-bar hyperons is a distinct feature of the COMPASS experiment. Preliminary results on the multiplicities of Lambda and Lambda-bar production, polarization of Lambda and Lambda-bar and yields of heavy hyperons in DIS are presented.

Primary author: Mr ALEXAKHIN, Vadim (JINR Dubna)

Presenter: Mr ALEXAKHIN, Vadim (JINR Dubna)

Contribution ID: 67

Type: **not specified**

The Fermilab Project-X Research Program

Fermilab is leading an international consortium to develop the design of “Project-X” which is an accelerator complex that will drive a broad range of experiments at the Intensity Frontier. The Project-X research program includes world-leading sensitivity in long-baseline neutrino experiments, neutrino scattering experiments, and a rich program of ultra-rare decay and electric dipole moment experiments that are sensitive to most new physics scenarios beyond the Standard Model. These experiments are driven with very high fluxes of neutrinos, muons, kaons, hyperons and exotic nuclei that are possible with Project-X. The status and prospects of the growing research program will be discussed.

Primary author: Dr TSCHIRHART, Robert (Fermilab)

Presenter: Dr TSCHIRHART, Robert (Fermilab)

Contribution ID: **68**Type: **not specified**

Lambda polarization

Lambda and antiLambda hyperon polarization data obtained in the HERMES experiment at 27.57 GeV positron beam are overviewed. The spin transfer from the longitudinally polarized beam D_{ll} has been measured in DIS regime. Kinematical dependencies of spin transfer coefficient D_{ll} are presented.

Transverse Lambda and antiLambda polarization and spin transfer coefficient K_{ll} from longitudinally polarized target to Lambda produced inclusively in quasi-real photon-nucleon scattering have been studied for series of nucleus target in a wide range of atomic numbers A . Dependencies of the Lambda and antiLambda polarization on kinematical variables, and also A -dependence of Lambda polarization is discussed.

Primary author: Dr NARYSHKIN, Yura (PNPI)

Presenter: Dr NARYSHKIN, Yura (PNPI)

Contribution ID: 69

Type: **not specified**

The NA62 experiment at CERN

The NA62 experiment aims to collect of the order of 100 K+ to pi+ nu nubar decays with a 10% level of background. Studies using Monte Carlo simulation of the apparatus and data from test beam runs were performed to assess the expected sensitivity of the apparatus. The results about signal acceptance and background rejection will be presented.

Primary author: Dr LAZZERONI, Cristina (University of Birmingham (UK))

Presenter: Dr LAZZERONI, Cristina (University of Birmingham (UK))

Contribution ID: 70

Type: **not specified**

Developments in Charmonium and Bottomonium Spectroscopy from CLEO

CLEO has an active program in the spectroscopy of charmonium and bottomonium hadrons. Recent developments in the discovery and confirmation of spin-singlet states in charmonium and bottomonium, searches for threshold resonances, precision measurements of hadron masses and decays, and others will be reviewed.

Primary author: Prof. SETH, Kamal (Northwestern University)

Presenter: Prof. SETH, Kamal (Northwestern University)

Contribution ID: 71

Type: **not specified**

ATLAS status and first results

The LHC has resumed operation with the first p-p collisions at 7 TeV on March 30th, 2010. The ATLAS detector is now collecting data with a prospect to integrate few pb⁻¹ of luminosity in the first months.

The talk will present an overview on detector performance and physics.

Primary author: Dr POGGIOLI, Luc (LAL, Orsay, France)

Presenter: Dr POGGIOLI, Luc (LAL, Orsay, France)

Contribution ID: 72

Type: **not specified**

Lepton energy moments in semileptonic charm decays

We search for signals of Weak Annihilation in inclusive semileptonic D decays. We consider both the widths and the lepton energy moments, which are quite sensitive probes. Our analysis of Cleo data shows no clear evidence of Weak Annihilation, and allows us to put bounds on their relevance in charmless B semileptonic decays.

Primary author: Dr KAMENIK, Jernej (Jozef Stefan Institute)

Co-author: Prof. GAMBINO, Paolo (Univ. Torino & INFN Torino)

Presenter: Dr KAMENIK, Jernej (Jozef Stefan Institute)

Contribution ID: 73

Type: **not specified**

Precision Measurement of $K^+ \rightarrow \pi^+, \nu, \bar{\nu}$ at Fermilab

The $K^+ \rightarrow \pi^+, \nu, \bar{\nu}$ process is both highly suppressed and calculable with high accuracy within the Standard Model. The rate of this process is consequently sensitive to most new physics scenarios beyond the Standard Model. A precision measurement of $K^+ \rightarrow \pi^+, \nu, \bar{\nu}$ would be one of the more incisive probes of quark flavor physics this decade. The experimental challenge to date of measuring $K^+ \rightarrow \pi^+, \nu, \bar{\nu}$ is from the 8×10^{-11} Standard Model rate. Several candidate events of the $K^+ \rightarrow \pi^+, \nu, \bar{\nu}$ process have been observed using the full resources of the AGS accelerator at BNL. CERN is now actively pursuing a 100-event (Standard Model) sensitivity experiment using a new technique driven by the SPS. Operating the Fermilab Tevatron after Run-II as a 150 GeV high-duty factor synchrotron “Stretcher” offers the opportunity to mount a 1000-event experiment based on the techniques developed and demonstrated at the BNL AGS. The Tevatron Stretcher would be a unique facility that would provide nearly ideal properties for rare-decay experiments, allowing the demonstrated performance of the AGS experiment to be extrapolated with confidence to an experiment driven by the Tevatron Stretcher at Fermilab. A proposal (Fermilab P996) submitted to Fermilab has received strong scientific support, and the P996 collaboration is now working with US funding agencies. The status and prospects of the P996 initiative will be presented and discussed.

Primary author: Dr TSCHIRHART, Robert (Fermilab)

Presenter: Dr TSCHIRHART, Robert (Fermilab)

Contribution ID: 75

Type: **not specified**

Advances in Open Charm Physics at CLEO-c

Cornell's Laboratory for Elementary Particle Physics hosts the CLEO-c experiment, which over the last several years, has collected data near the charm production threshold. The full data sample, now completely in hand, includes over 10 million D mesons - a particle containing a charm quark and an anti-up or anti-down quark, approximately 1.2 million Ds mesons - a particle containing a charm quark and an anti-strange quark. These unprecedented "charm" data samples were collected in the superb CLEO-c detector, which provides excellent electromagnetic calorimetry, charged particle tracking and identification, and near 4pi solid angular coverage.

A survey of CLEO Open Charm results will be presented. These results substantially extend the reach and understanding of heavy flavor physics. The world community will benefit as results from CLEO-c extend the reach of the Belle experiment at KEK and LHCb experiment at CERN and lay foundations for the physics program of the BESIII experiment in China.

Primary author: Dr NAIK, Paras (University of Bristol)

Presenter: Dr NAIK, Paras (University of Bristol)

Contribution ID: 79

Type: **not specified**

Study of D-mesons in the hadronic channel with the ALICE detector

At LHC energy, heavy quarks will be abundantly produced and the design of the ALICE Experiment will allow us to study their production using several channels. We investigate the feasibility of the study of D mesons reconstructed in their exclusive hadronic decay channel.

After reviewing the ALICE potential for such studies, we will present some results for the two more promising decay channel i.e $D^0 \rightarrow K\pi$ and $D^{+-} \rightarrow K\pi\pi$ obtained at with 7 TeV data.

Primary author: Dr BALA, Renu (TO)

Presenter: Dr BALA, Renu (TO)

Contribution ID: 80

Type: **not specified**

Hyperon Resonance Photoproduction at CLAS

The photoproduction of hyperons and hyperon resonances is studied with the CLAS detector at Jefferson Lab using beams of photons in the energy range of 1 to 4 GeV. Much has been learned about how to theoretically model the photoproduction of the ground-state hyperons, including surprisingly simple rules of spin-transfer from the photon to the hyperon, leading to the introduction of new nucleon resonances that are not strongly observed in pion-scattering partial wave analysis (PWA). In addition, data on *K* photoproduction has extended the theoretical modeling to strange vector mesons and how their spin couples to the hyperon final state. Hyperon resonances are now being studied at CLAS, including the Λ resonances at 1405 MeV and 1520 MeV, and the Σ^* resonance at 1385 MeV. New results from CLAS will be presented.

Summary

The results on kaon-hyperon photoproduction suggest that a new nucleon resonance is seen at about 1900 MeV, which couples strongly to this production channel. Nearly complete spin-transfer from the photon to the hyperon is observed for few-GeV photons. In contrast, new data for K^* photoproduction shows a much smaller spin-transfer, suggesting that some of the spin is transferred to the vector meson. New data on the $\Lambda(1405)$ shows a marked deviation from expected isospin-symmetric decays, which suggests interference due to poles of dynamically-generated intermediate resonances. New results for the radiative decay of $\Sigma(1385)$ will also be presented.

Primary author: Prof. HICKS, Kenneth (Ohio University)

Presenter: Prof. HICKS, Kenneth (Ohio University)

Contribution ID: **81**Type: **not specified**

Toshio Numao

The branching ratio of pion decays, $R=B(\pi^- \rightarrow e \nu)/B(\pi^- \rightarrow \mu \nu)$, has provided the best test of electron-muon universality in weak interactions. While the Standard Model prediction is $R=(1.2353 \pm 0.0001) \times 10^{-4}$, the existing experimental results, $R=(1.2265 \pm 0.0056) \times 10^{-4}$ (TRIUMF) and $R=(1.2346 \pm 0.0050) \times 10^{-4}$ (PSI), are still two orders of magnitude less precise. Since this branching ratio is sensitive to the presence of pseudoscalar couplings, a wide range for new physics up to 1000 TeV can be searched for by improving the measurement by an order of magnitude.

In this talk we discuss the motivation and the status of the new experiments for the branching ratio measurement as well as related pion decays.

Primary author: Dr NUMAO, Toshio (TRIUMF)

Presenter: Dr NUMAO, Toshio (TRIUMF)

Contribution ID: 82

Type: **not specified**

First measurements of strange baryons and anti-baryons with the ALICE experiment in pp collisions at LHC

The status of strange baryon and anti-baryon analysis in pp collisions at LHC is reported. It is based on ALICE pp data collected at $\sqrt{s}= 900$ GeV and 7 TeV. The performance of Lambda (anti-Lambda), Xi (anti-Xi) and Omega (anti-Omega) reconstruction via their weak decay topology is described. Global yields and transverse momentum spectra extracted at central rapidity are presented.

Primary author: Dr VERNET, Renaud (CC-IN2P3)

Presenter: Dr VERNET, Renaud (CC-IN2P3)

Contribution ID: 83

Type: **not specified**

Heavy quark measurements and the new Silicon Tracker (HFT) in STAR experiment at RHIC

The HFT is a new central silicon upgrade for the STAR experiment at RHIC. It is replacing the decommissioned silicon drift detector with active pixel technology in order to achieve about an order of magnitude better track pointing (DCA) resolution. This will allow for a direct and full topological reconstruction of charmed meson decays (e.g. D^0 etc.) and a better determination of B - meson spectra. Key measurements are D^0 elliptic flow determination, especially in the lower transverse momenta (p_T) region and detailed identified heavy quark suppression studies at high p_T (R_{CP}/R_{AA}).

Summary

Due to their large masses, heavy flavor (c and b) quarks are produced in the early stages of heavy ion collisions where the full initial energy is available for particle production. Radiative energy loss in dense partonic matter is thought to be inversely proportional to the quark mass. Early measurements of heavy flavor energy loss at RHIC using the decay-electron spectra of D and B mesons showed a suppression similar to that of light quarks. This puzzling result lead theorists to re-speculate the cause of this effect. Experimentally it is difficult to separate the charm and bottom contributions in the electron spectra. The two major experiments at RHIC, PHENIX and STAR both decided to upgrade their silicon vertex detectors in order to be able to improve their measuring capabilities. The STAR approach and goal is to obtain a precise measurement of heavy flavor production by identifying the decay of charmed mesons using direct topological reconstruction and thus disentangling the c and b contributions. In this talk we will present a brief report on the current status of measurements and future prospects.

Primary author: Prof. MARGETIS, Spyridon (Kent State University)

Presenter: Prof. MARGETIS, Spyridon (Kent State University)

Contribution ID: 85

Type: **not specified**

First observation for heavy flavour production from the ALICE experiment at LHC

The ALICE experiment is the LHC detector dedicated to the study of the Quark Gluon Plasma (QGP) in Pb-Pb collisions. Heavy flavours are ideal probes to explore both the formation and properties of the QGP, since they experience the full collision history and are expected to be copiously produced at LHC, much more than at any other collider. With ALICE we will measure heavy flavours down to small transverse momentum, combining hadronic and leptonic channels, both at central and forward rapidity. In particular, at central rapidity, it is possible to exclusively reconstruct a selection of hadronic decay channels for open charm mesons and baryons. In addition, the good identification of electrons allows to measure the production both of charmonium and open bottom.

An overview of the heavy flavour programme will be presented, focusing on the charm measurement in the central rapidity region. First results from p-p collisions at 7 TeV will be shown, including the clear signals of open and hidden charm hadrons reconstructed at ALICE. These data provide interesting insight into QCD processes in a new energy regime, are important as a baseline for the Pb-Pb program and demonstrate the potential for heavy flavour cross section measurements with the ALICE detector.

Primary author: Dr ROMITA, Rossella (GSI, Darmstadt)

Presenter: Dr ROMITA, Rossella (GSI, Darmstadt)

Contribution ID: 86

Type: **not specified**

Open charm production in the $D^{*+} \rightarrow D0 \pi^+$ decay channel with ALICE

Y.Wang for the ALICE Collaboration

Heavy quarks(c, b), due to their large mass, are unique tools to study the degree of thermalization of the initially created matter in high energy nuclear collisions at LHC. The calculation of the total charm production remains a challenge in perturbative QCD. Presently, measurement of the charm production at the TeV scale are rather limited.

LHC has just started delivering p+p collisions at the world's highest center of mass energy of 7 TeV. The first results on open charm resonance production in the channel $D^{*+} \rightarrow D0 + \pi^+$ (BR:68%), where $D0 \rightarrow K \pi^+$ channel(BR: 4%), with the ALICE detector will be shown.

Primary author: WANG, Yifei (Uni Heidelberg)

Presenter: WANG, Yifei (Uni Heidelberg)

Contribution ID: 87

Type: **not specified**

B Physics Results from the D0 Experiment

I will describe several recent results from the D0 experiment on the Tevatron proton-antiproton collider at Fermilab. The main subject will be searches for CP-violation, including a new di-muon charge asymmetry measurement. New results from the search for $B_s \rightarrow \mu\mu$ decays will also be presented.

Primary author: Dr WILLIAMS, Mark (Lancaster University / Fermilab)

Presenter: Dr WILLIAMS, Mark (Lancaster University / Fermilab)

Contribution ID: 88

Type: **not specified**

Quarkonium and Heavy Flavour Physics with the ALICE Muon Spectrometer at the LHC

The LHC heavy-ion physics programme aims at investigating the properties of strongly interacting matter at extreme energy density where the formation of the Quark Gluon Plasma (QGP) is expected. Amongst the most promising observables, quarkonia and heavy flavours are especially relevant since they provide unique access to the properties of the strongly interacting medium, independently of their leptonic decay. The successful achievement of the heavy-ion programme requires also the study of proton-proton collisions. Besides providing the necessary baseline for nucleus-nucleus collisions, proton-proton collisions are of great interest, also in their own right, since they allow to test perturbative QCD at unprecedented low Bjorken- x values.

ALICE (A Large Ion Collider Experiment) is the only detector dedicated to the study of nucleus-nucleus collisions at the LHC. Quarkonia and heavy flavours are measured in ALICE with (di)-electrons and (di)-muons and, through the hadronic channels. After a description of the ALICE muon spectrometer, its expected performances for quarkonium and heavy flavour measurements will be reviewed. Special attention will be given to the first experimental results obtained in p - p collisions collected at 7 TeV.

Primary author: Prof. BASTID, Nicole (LPC Clermont-Ferrand)

Presenter: Prof. BASTID, Nicole (LPC Clermont-Ferrand)

Contribution ID: 89

Type: **not specified**

The E391a experiment at KEK

The KEK-PS E391a experiment is the first experiment dedicated to the $KL \rightarrow \pi^0 \nu \bar{\nu}$ decay. Its primary goal is to establish an experimental method for precise measurement of the ultra rare process. There were three times of data taking during 2002-2003 at the 12-GeV proton synchrotron in KEK, Japan. The experimental group published their results recently and it will be the main contents of this talk.

Primary author: Dr LIM, GeiYoub (KEK)

Presenter: Dr LIM, GeiYoub (KEK)

Contribution ID: 90

Type: **not specified**

Kaon Experiments at J-PARC

The newly constructed high-intensity proton synchrotron, J-PARC (Japan Proton Accelerator Research Complex, <http://j-parc.jp/>), has completed the first stage of construction and the accelerator components are under commissioning. Many experiments using slowly extracted proton beam are proposed and preparing. In this talk, two experiments, 'KOTO' to search for $K_L \rightarrow \pi^0 \nu \bar{\nu}$ decay and 'TREK' for T-Violation using $K^+ \rightarrow \pi^0 \mu^+ \nu$ decay, will be introduced and their status will be reported.

Primary author: Dr LIM, GeiYoub (KEK)

Presenter: Dr LIM, GeiYoub (KEK)

Contribution ID: 91

Type: **not specified**

Charm and Beauty production at RHIC

We present results on charm and beauty production at RHIC, in p+p, d+Au and A+A collisions at $\sqrt{s_{NN}}=200$ GeV, and compare them to model calculations. We focus on two particular issues, jet quenching and quarkonia. Anomalous energy loss (jet quenching) of quarks passing through the dense and hot matter build in heavy ion collisions is one of the outstanding discoveries made at RHIC, allowing for an estimate of the initial density. Furthermore, color screening of hidden charm and beauty states is a key signature of the QCD phase transition, allowing an estimate of the initial temperature. We present results on the flavour (u,d,s,c,b) dependence of jet quenching. Heavy flavour production in A+A as compared to p+p collisions will be discussed for open and hidden charm.

Primary author: Prof. KABANA, Sonia (SUBATECH)

Presenter: Prof. KABANA, Sonia (SUBATECH)

Contribution ID: 92

Type: **not specified**

Unitarity Triangle and New Physics

The origin of flavour and the understanding of the hierarchies in quark and lepton masses and mixings are among the most important open issues in particle physics. In this talk, we discuss a range of topics: from theories that can (partially) explain the origin of flavor to more specific issues related to the precise determination of elements of the CKM matrix including the interpretation of interesting recent experimental results. The global status of the field, as well as its future prospects, are also discussed.

Primary author: Dr PARADISI, Paride (TUM)

Presenter: Dr PARADISI, Paride (TUM)

Contribution ID: 93

Type: **not specified**

Status and prospects of the SuperB project

SuperB is a next generation asymmetric e^+e^- flavor factory with a baseline luminosity of 10^{36} $\text{cm}^{-2} \text{s}^{-1}$, almost two orders of magnitude the peak luminosity of the existing B-factories. The physics motivation and the status of the project are described.

Primary author: Dr RAMA, Matteo (LNF)

Presenter: Dr RAMA, Matteo (LNF)

Contribution ID: 94

Type: **not specified**

Heavy Flavors as a Gate to New Physics

Monday, 21 June 2010 11:00 (45 minutes)

Primary author: Prof. MASIERO, Antonio (University of Padova and INFN)

Presenter: Prof. MASIERO, Antonio (University of Padova and INFN)

Session Classification: Opening Session

Contribution ID: 95

Type: **not specified**

Status of ATLAS and first results

Monday, 21 June 2010 14:00 (30 minutes)

Primary author: Prof. TOVEY, Dan (University of Sheffield)

Presenter: Prof. TOVEY, Dan (University of Sheffield)

Session Classification: Flavor Physics at LHC - I (14:00-16:00)

Contribution ID: 96

Type: **not specified**

Status of CMS and first results

Monday, 21 June 2010 14:30 (30 minutes)

Primary author: Dr BIINO, Cristina (INFN Torino)

Presenter: Dr BIINO, Cristina (INFN Torino)

Session Classification: Flavor Physics at LHC - I (14:00-16:00)

Contribution ID: 97

Type: **not specified**

LHCb status and minimum bias physics

Monday, 21 June 2010 15:00 (30 minutes)

Primary author: Dr BACHMANN, Sebastian (University of Heidelberg)

Presenter: Dr BACHMANN, Sebastian (University of Heidelberg)

Session Classification: Flavor Physics at LHC - I (14:00-16:00)

Contribution ID: 98

Type: **not specified**

Status of the ALICE experiment and first results on heavy flavor production

Monday, 21 June 2010 15:30 (30 minutes)

Primary author: Dr ROMITA, Rosa (GSI Darmstadt)

Presenter: Dr ROMITA, Rosa (GSI Darmstadt)

Session Classification: Flavor Physics at LHC - I (14:00-16:00)

Contribution ID: 99

Type: **not specified**

Coffee Break

Contribution ID: **100**

Type: **not specified**

Muon commissioning and Exclusive B production at CMS with the first LHC data

Monday, 21 June 2010 16:30 (20 minutes)

Primary author: Dr TARONI, Silvia (INFN Milano-Bicocca)

Presenter: Dr TARONI, Silvia (INFN Milano-Bicocca)

Session Classification: Flavor Physics at LHC - II (16:30-17:30)

Contribution ID: **101**

Type: **not specified**

Studies of open charm and charmonium production at LHCb

Monday, 21 June 2010 16:50 (20 minutes)

Primary author: Dr CHARLES, Matthew (Oxford University)

Presenter: Dr CHARLES, Matthew (Oxford University)

Session Classification: Flavor Physics at LHC - II (16:30-17:30)

Contribution ID: **102**

Type: **not specified**

Charmonium and beauty ATLAS physics programme

Monday, 21 June 2010 17:10 (20 minutes)

Primary author: Dr SMIZANSKA, Maria (Lancaster University)

Presenter: Dr SMIZANSKA, Maria (Lancaster University)

Session Classification: Flavor Physics at LHC - II (16:30-17:30)

Contribution ID: **103**

Type: **not specified**

Study of D-mesons in the hadronic channel with the ALICE detector

Monday, 21 June 2010 17:30 (20 minutes)

Primary author: Dr BALA, Renu (INFN Torino)

Presenter: Dr BALA, Renu (INFN Torino)

Session Classification: Flavor Physics at LHC - III (17:30-18:30)

Contribution ID: **104**

Type: **not specified**

First ATLAS results on charm production

Monday, 21 June 2010 17:50 (20 minutes)

Primary author: Dr MOUNTRICHA, Eleni (NTUA, Athens)

Presenter: Dr MOUNTRICHA, Eleni (NTUA, Athens)

Session Classification: Flavor Physics at LHC - III (17:30-18:30)

Contribution ID: **105**

Type: **not specified**

Low-mass di-muons at CMS

Monday, 21 June 2010 18:10 (20 minutes)

Primary author: Dr KYPREOS, Theodore (University of Florida)

Presenter: Dr KYPREOS, Theodore (University of Florida)

Session Classification: Flavor Physics at LHC - III (17:30-18:30)

Contribution ID: **106**

Type: **not specified**

Concluding Remarks

Saturday, 26 June 2010 09:00 (15 minutes)

Session Classification: Concluding Session - I (9:00-10:45)

Contribution ID: **107**

Type: **not specified**

Higgs search prospects at LHC

Saturday, 26 June 2010 09:15 (30 minutes)

Primary author: Dr GONZALEZ SUAREZ, Rebeca (IFCA, Santander)

Presenter: Dr GONZALEZ SUAREZ, Rebeca (IFCA, Santander)

Session Classification: Concluding Session - I (9:00-10:45)

Contribution ID: **108**

Type: **not specified**

Search for Susy and new physics at LHC

Saturday, 26 June 2010 09:45 (30 minutes)

Primary author: Dr MILSTEAD, David Antony (Stockholm University)

Presenter: Dr MILSTEAD, David Antony (Stockholm University)

Session Classification: Concluding Session - I (9:00-10:45)

Contribution ID: **109**

Type: **not specified**

Beauty and charm to study new physics at future linear colliders

Saturday, 26 June 2010 10:15 (30 minutes)

Primary author: Dr BATTAGLIA, Marco (UCSC and CERN)

Presenter: Dr BATTAGLIA, Marco (UCSC and CERN)

Session Classification: Concluding Session - I (9:00-10:45)

Contribution ID: **110**

Type: **not specified**

BEACH2010 Summary Talk

Saturday, 26 June 2010 11:15 (1 hour)

Primary author: Prof. NAKADA, Tatsuya (Ecole Polytechnique Federale de Lausanne (EPFL))

Presenter: Prof. NAKADA, Tatsuya (Ecole Polytechnique Federale de Lausanne (EPFL))

Session Classification: Concluding Session - II (11:15-12:30)

Contribution ID: **111**

Type: **not specified**

Conference Closing

Saturday, 26 June 2010 12:15 (15 minutes)

Session Classification: Concluding Session - II (11:15-12:30)

Contribution ID: 112

Type: **not specified**

Il Large Hadron Collider del CERN: la piu' grande macchina alle frontiere dell'ignoto

Friday, 25 June 2010 17:30 (1 hour)

Primary author: Prof. FERRONI, Fernando (University La Sapienza and INFN, Roma)

Presenter: Prof. FERRONI, Fernando (University La Sapienza and INFN, Roma)

Session Classification: General Public Seminar

Contribution ID: 113

Type: **not specified**

Expectations for first measurements of t-tbar pair production using early CMS data

Tuesday, 22 June 2010 09:00 (20 minutes)

Primary author: Dr LE BIHAN, Anne-Catherine (IPHC CNRS/IN2P3, Strasbourg)

Presenter: Dr LE BIHAN, Anne-Catherine (IPHC CNRS/IN2P3, Strasbourg)

Session Classification: Flavor Physics at LHC - IV (9:00-10:20)

Contribution ID: **114**

Type: **not specified**

ATLAS top physics

Primary author: Dr SURULIZ, Kerim (ICTP, Trieste)

Presenter: Dr SURULIZ, Kerim (ICTP, Trieste)

Contribution ID: 115

Type: **not specified**

ATLAS top physics

Contribution ID: **116**

Type: **not specified**

ATLAS top physics

Tuesday, 22 June 2010 09:20 (20 minutes)

Primary author: Dr SURULIZ, Kerim (ICTP, Trieste)

Presenter: Dr SURULIZ, Kerim (ICTP, Trieste)

Session Classification: Flavor Physics at LHC - IV (9:00-10:20)

Contribution ID: 117

Type: **not specified**

Quarkonium and Heavy Flavour Physics with the ALICE Muon Spectrometer at the LHC

Tuesday, 22 June 2010 09:40 (20 minutes)

Primary author: Prof. BASTID, Nicole (LPC Clermont-Ferrand)

Presenter: Prof. BASTID, Nicole (LPC Clermont-Ferrand)

Session Classification: Flavor Physics at LHC - IV (9:00-10:20)

Contribution ID: 118

Type: **not specified**

Open Charm production in the D* -> D0 pi+ decay channel with ALICE

Tuesday, 22 June 2010 10:00 (20 minutes)

Primary author: WANG, Yifei (Uni Heidelberg)

Presenter: WANG, Yifei (Uni Heidelberg)

Session Classification: Flavor Physics at LHC - IV (9:00-10:20)

Contribution ID: 119

Type: **not specified**

Search for New Physics in Heavy Quark Decays at LHCb

Tuesday, 22 June 2010 10:50 (20 minutes)

Primary author: VAN TILBURG, Jeroen (Universitaet Zuerich)

Presenter: VAN TILBURG, Jeroen (Universitaet Zuerich)

Session Classification: Flavor Physics at LHC - V (10:50-11:50)

Contribution ID: 120

Type: **not specified**

First measurements of strange baryons and anti-baryons with the ALICE experiment in pp collisions at LHC

Tuesday, 22 June 2010 11:10 (20 minutes)

Primary author: Dr VERNET, Renaud (CC-IN2P3)

Presenter: Dr VERNET, Renaud (CC-IN2P3)

Session Classification: Flavor Physics at LHC - V (10:50-11:50)

Contribution ID: 121

Type: **not specified**

R_(AA) of charm quarks at RHIC and LHC

Tuesday, 22 June 2010 11:30 (20 minutes)

Primary author: Dr UMME JAMIL, Begum (Variable Energy Cyclotron Centre, Kolkata)

Presenter: Dr UMME JAMIL, Begum (Variable Energy Cyclotron Centre, Kolkata)

Session Classification: Flavor Physics at LHC - V (10:50-11:50)

Contribution ID: 122

Type: **not specified**

Recent CKM Element Results from BaBar and Belle

Tuesday, 22 June 2010 11:50 (20 minutes)

Primary author: GAGLIARDI, Nicola (University of Padova)

Presenter: GAGLIARDI, Nicola (University of Padova)

Session Classification: CKM and CP violation - I (11:50-12:30)

Contribution ID: 123

Type: **not specified**

Recent results on CP violation and CKM UT angles from Belle and BaBar

Tuesday, 22 June 2010 12:10 (20 minutes)

Primary author: Dr MOHANTY, Gagan (TIFR Mumbai)

Presenters: Dr MOHANTY, Gagan (TIFR Mumbai); Prof. CHEN, Kai-Feng (National Taiwan University)

Session Classification: CKM and CP violation - I (11:50-12:30)

Contribution ID: 124

Type: **not specified**

Unitarity Triangle and New Physics

Tuesday, 22 June 2010 14:00 (30 minutes)

Primary author: Dr PARADISI, Paride (TUM)

Presenter: Dr PARADISI, Paride (TUM)

Session Classification: CKM and CP violation - II (14:00-15:00)

Contribution ID: 125

Type: **not specified**

New measurement of the Bs mixing phase at the Tevatron

Tuesday, 22 June 2010 14:30 (30 minutes)

Primary author: Dr BEDESCHI, Franco (INFN Pisa)

Presenter: Dr BEDESCHI, Franco (INFN Pisa)

Session Classification: CKM and CP violation - II (14:00-15:00)

Contribution ID: 126

Type: **not specified**

Production of Heavy Flavors in ep Collisions at HERA

Primary author: Dr PERLANSKI, Wojciech (Lodz University)

Presenter: Dr PERLANSKI, Wojciech (Lodz University)

Contribution ID: 127

Type: **not specified**

Production of Heavy Flavors in ep Collisions at HERA

Contribution ID: 128

Type: **not specified**

Production of Heavy Flavors in ep Collisions at HERA

Contribution ID: **129**

Type: **not specified**

Production of Heavy Flavors in ep Collisions at HERA

Tuesday, 22 June 2010 15:00 (30 minutes)

Primary author: Dr PERLANSKI, Wojciech (Lodz University)

Presenter: Dr PERLANSKI, Wojciech (Lodz University)

Session Classification: Hadron Production in Lepton Interactions - I (15:00-16:00)

Contribution ID: **130**

Type: **not specified**

The physics program of CLAS12

Primary author: Dr NICCOLAI, Silvia (IPN Orsay)

Presenter: Dr NICCOLAI, Silvia (IPN Orsay)

Contribution ID: 131

Type: **not specified**

The physics program of CLAS12

Tuesday, 22 June 2010 15:30 (30 minutes)

Primary author: Dr NICCOLAI, Silvia (IPN Orsay)

Presenter: Dr NICCOLAI, Silvia (IPN Orsay)

Session Classification: Hadron Production in Lepton Interactions - I (15:00-16:00)

Contribution ID: 132

Type: **not specified**

Particle Production and Fragmentation at HERA

Tuesday, 22 June 2010 16:30 (30 minutes)

Primary author: Dr NOWAK, Grazyna (INP PAS, Krakow)

Presenter: Dr NOWAK, Grazyna (INP PAS, Krakow)

Session Classification: Hadron Production in Lepton Interactions - II (16:30-18:20)

Contribution ID: 133

Type: **not specified**

Production and Polarization of Lambda and Lambda-bar Hyperons in Deep Inelastic Scattering at COMPASS

Tuesday, 22 June 2010 17:00 (20 minutes)

Primary author: Mr ALEXAKHIN, Vadim (JINR Dubna)

Presenter: Mr ALEXAKHIN, Vadim (JINR Dubna)

Session Classification: Hadron Production in Lepton Interactions - II (16:30-18:20)

Contribution ID: 134

Type: **not specified**

Lambda Polarization at HERMES

Tuesday, 22 June 2010 17:20 (20 minutes)

Primary author: Dr NARYSHKIN, Yura (PNPI)

Presenter: Dr NARYSHKIN, Yura (PNPI)

Session Classification: Hadron Production in Lepton Interactions - II (16:30-18:20)

Contribution ID: 135

Type: **not specified**

Hyperon Resonance Photoproduction at CLAS

Tuesday, 22 June 2010 17:40 (20 minutes)

Primary author: Prof. HICKS, Kenneth (Ohio University)

Presenter: Prof. HICKS, Kenneth (Ohio University)

Session Classification: Hadron Production in Lepton Interactions - II (16:30-18:20)

Contribution ID: 136

Type: **not specified**

Search for Non-Standard Model Physics in Rare Decays at the Tevatron

Wednesday, 23 June 2010 09:00 (30 minutes)

Primary author: Dr VOLPI, Guido (INFN Pisa)

Presenter: Dr VOLPI, Guido (INFN Pisa)

Session Classification: Heavy Flavor Decay and Properties - I (9:00-10:30)

Contribution ID: 137

Type: **not specified**

Recent results on quarkonia at Belle

Wednesday, 23 June 2010 09:30 (20 minutes)

Primary author: Dr BRODZICKA, Jolanta (INP Krakow)

Presenter: Dr BRODZICKA, Jolanta (INP Krakow)

Session Classification: Heavy Flavor Decay and Properties - I (9:00-10:30)

Contribution ID: 138

Type: **not specified**

Searches for New Physics at BaBar

Wednesday, 23 June 2010 09:50 (20 minutes)

Primary author: Dr CARTARO, Concetta (SLAC)

Presenter: Dr CARTARO, Concetta (SLAC)

Session Classification: Heavy Flavor Decay and Properties - I (9:00-10:30)

Contribution ID: 139

Type: **not specified**

Advances in Open Charm Physics at CLEO-c

Wednesday, 23 June 2010 10:10 (20 minutes)

Primary author: Dr NAIK, Paras (University of Bristol)

Presenter: Dr NAIK, Paras (University of Bristol)

Session Classification: Heavy Flavor Decay and Properties - I (9:00-10:30)

Contribution ID: 140

Type: **not specified**

Evidence for an Anomalous Like-sign Dimuon Asymmetry at the D0 Experiment

Wednesday, 23 June 2010 11:00 (25 minutes)

Primary author: Dr WILLIAMS, Mark (Lancaster University / Fermilab)

Presenter: Dr WILLIAMS, Mark (Lancaster University / Fermilab)

Session Classification: Heavy Flavor Decay and Properties - II (11:00-12:25)

Contribution ID: 141

Type: **not specified**

Heavy Flavor Properties at CDF

Wednesday, 23 June 2010 11:25 (20 minutes)

Primary author: Dr DE CECCO, Sandro (LPNHE, Université Paris VII, CNRS-IN2P3)

Presenter: Dr DE CECCO, Sandro (LPNHE, Université Paris VII, CNRS-IN2P3)

Session Classification: Heavy Flavor Decay and Properties - II (11:00-12:25)

Contribution ID: 142

Type: **not specified**

Hadronic B Decays at Belle

Wednesday, 23 June 2010 11:45 (20 minutes)

Primary author: Prof. CHEN, Kai-Feng (National Taiwan University)

Presenter: Prof. CHEN, Kai-Feng (National Taiwan University)

Session Classification: Heavy Flavor Decay and Properties - II (11:00-12:25)

Contribution ID: 143

Type: **not specified**

Lepton Energy Moments in Semileptonic Charm Decays

Wednesday, 23 June 2010 12:05 (20 minutes)

Primary author: Dr KAMENIK, Jernej (Jozef Stefan Institute)

Presenter: Dr KAMENIK, Jernej (Jozef Stefan Institute)

Session Classification: Heavy Flavor Decay and Properties - II (11:00-12:25)

Contribution ID: 144

Type: **not specified**

Rare K decays and epsilon_K: Theory Prediction

Thursday, 24 June 2010 09:00 (30 minutes)

Primary author: Dr BROD, Joachim (ECU, TU Munich)

Presenter: Dr BROD, Joachim (ECU, TU Munich)

Session Classification: Kaon Physics: Theory and Experiments - I (9:00-10:40)

Contribution ID: 145

Type: **not specified**

Lepton Universality tests with leptonic kaon decays

Thursday, 24 June 2010 09:30 (30 minutes)

Primary author: Dr GOUDZOVSKI, Evgueni (JINR Dubna)

Presenter: Dr GOUDZOVSKI, Evgueni (JINR Dubna)

Session Classification: Kaon Physics: Theory and Experiments - I (9:00-10:40)

Contribution ID: 146

Type: **not specified**

Results from the E391a experiment at KEK

Thursday, 24 June 2010 10:00 (20 minutes)

Primary author: Dr LIM, GeiYoub (KEK)

Presenter: Dr LIM, GeiYoub (KEK)

Session Classification: Kaon Physics: Theory and Experiments - I (9:00-10:40)

Contribution ID: 147

Type: **not specified**

CP violation tests with rare kaon decays in NA48

Thursday, 24 June 2010 10:20 (20 minutes)

Primary author: Dr MARINOVA, Evelina M. (INFN Perugia)

Presenter: Dr MARINOVA, Evelina M. (INFN Perugia)

Session Classification: Kaon Physics: Theory and Experiments - I (9:00-10:40)

Contribution ID: 148

Type: **not specified**

Results on radiative kaon decays and Ks and Kl lifetimes at KLOE

Thursday, 24 June 2010 11:10 (30 minutes)

Primary author: Dr ANTONELLI, Mario (INFN, LNF)

Presenter: Dr ANTONELLI, Mario (INFN, LNF)

Session Classification: Kaon Physics: Theory and Experiments - II (11:10-12:20)

Contribution ID: 149

Type: **not specified**

Precision measurements of kaon radiative decays

Thursday, 24 June 2010 11:40 (20 minutes)

Primary author: Dr BIINO, Cristina (INFN Torino)

Presenter: Dr BIINO, Cristina (INFN Torino)

Session Classification: Kaon Physics: Theory and Experiments - II (11:10-12:20)

Contribution ID: 150

Type: **not specified**

A new measurement of charged kaons mass

Thursday, 24 June 2010 12:00 (20 minutes)

Primary author: Prof. SOLOMEY, Nickolas (Wichita State University)

Presenter: Prof. SOLOMEY, Nickolas (Wichita State University)

Session Classification: Kaon Physics: Theory and Experiments - II (11:10-12:20)

Contribution ID: 151

Type: **not specified**

Kaon-nucleon/nuclei interaction studies by kaonic atoms measurements: the SIDDHARTA Experimenta at DAFNE

Thursday, 24 June 2010 14:00 (20 minutes)

Primary author: Dr SIRGHI, Diana Laura (LNF)

Presenter: Dr SIRGHI, Diana Laura (LNF)

Session Classification: Kaon Physics: Theory and Experiments - III (14:00-14:40)

Contribution ID: 152

Type: **not specified**

Precision measurements of pion-pion scattering length in K_{e4} decays at NA48

Thursday, 24 June 2010 14:20 (20 minutes)

Primary author: Dr WANKE, Rainer (Mainz University)

Presenter: Dr WANKE, Rainer (Mainz University)

Session Classification: Kaon Physics: Theory and Experiments - III (14:00-14:40)

Contribution ID: 153

Type: **not specified**

Status and Prospects of SuperKEKB and Belle II

Thursday, 24 June 2010 14:40 (20 minutes)

Primary author: Dr BRODZICKA, Jolanta (INP Krakow)

Presenter: Dr BRODZICKA, Jolanta (INP Krakow)

Session Classification: New Projects - I (14:40-16:10)

Contribution ID: 154

Type: **not specified**

Status and Prospects of the SuperB Factory

Thursday, 24 June 2010 15:00 (20 minutes)

Primary author: Dr RAMA, Matteo (LNF)

Presenter: Dr RAMA, Matteo (LNF)

Session Classification: New Projects - I (14:40-16:10)

Contribution ID: 155

Type: **not specified**

The Fermilab Project-X Research Program

Thursday, 24 June 2010 15:20 (20 minutes)

Primary author: Dr TSCHIRHART, Robert (Fermilab)

Presenter: Dr TSCHIRHART, Robert (Fermilab)

Session Classification: New Projects - I (14:40-16:10)

Contribution ID: 156

Type: **not specified**

The KLOE2 Experiment at DAFNE upgraded in luminosity

Thursday, 24 June 2010 15:40 (20 minutes)

Primary author: Dr GONNELLA, Francesco (University Roma Tor Vergata and INFN)

Presenter: Dr GONNELLA, Francesco (University Roma Tor Vergata and INFN)

Session Classification: New Projects - I (14:40-16:10)

Contribution ID: 157

Type: **not specified**

Kaon Experiments at J-Parc

Thursday, 24 June 2010 16:30 (30 minutes)

Primary author: Dr LIM, GeiYoub (KEK)

Presenter: Dr LIM, GeiYoub (KEK)

Session Classification: New Projects - II (16:30-18:20)

Contribution ID: **158**

Type: **not specified**

The NA62 Experiment at CERN

Thursday, 24 June 2010 17:00 (20 minutes)

Primary author: Dr RUGGIERO, Giuseppe (Scuola Normale Superiore, Pisa)

Presenter: Dr RUGGIERO, Giuseppe (Scuola Normale Superiore, Pisa)

Session Classification: New Projects - II (16:30-18:20)

Contribution ID: 159

Type: **not specified**

Precision Measurement of $K^+ \rightarrow \pi^+ \nu \bar{\nu}$ at Fermilab

Thursday, 24 June 2010 17:20 (20 minutes)

Primary author: Dr TSCHIRHART, Robert (Fermilab)

Presenter: Dr TSCHIRHART, Robert (Fermilab)

Session Classification: New Projects - II (16:30-18:20)

Contribution ID: **160**

Type: **not specified**

Kaon-nuclei interaction studies at low energies: the AMADEUS experiment

Thursday, 24 June 2010 17:40 (20 minutes)

Primary author: Dr PISCICCHIA, Kristian (INFN, LNF)

Presenter: Dr PISCICCHIA, Kristian (INFN, LNF)

Session Classification: New Projects - II (16:30-18:20)

Contribution ID: 161

Type: **not specified**

Heavy quark measurements and the new Silicon Tracker (HFT) in STAR experiment at RHIC

Thursday, 24 June 2010 18:00 (20 minutes)

Primary author: Prof. MARGETIS, Spyridon (Kent State University)

Presenter: Prof. MARGETIS, Spyridon (Kent State University)

Session Classification: New Projects - II (16:30-18:20)

Contribution ID: **162**

Type: **not specified**

Lepton Flavor for Hadron Flavor Physicists

Friday, 25 June 2010 09:00 (40 minutes)

Primary author: Prof. KING, Steve (University of Southampton)

Presenter: Prof. KING, Steve (University of Southampton)

Session Classification: Lepton Flavor - I (9:00-10:50)

Contribution ID: 163

Type: **not specified**

Lepton Flavor Violation search with $\mu \rightarrow e \gamma$ decay: the MEG experiment

Friday, 25 June 2010 09:40 (20 minutes)

Primary author: Mr NATORI, Hiroaki (Univ. of Tokyo)

Presenter: Mr NATORI, Hiroaki (Univ. of Tokyo)

Session Classification: Lepton Flavor - I (9:00-10:50)

Contribution ID: 164

Type: **not specified**

A new high sensitivity muon-electron conversion search at Fermilab

Friday, 25 June 2010 10:00 (20 minutes)

Primary authors: Dr KUTSCHKE, Rob (Fermilab); Dr BERNSTEIN, Robert Bernstein (Fermilab); Dr TSCHIRHART, Robert (Fermilab)

Presenter: Dr TSCHIRHART, Robert (Fermilab)

Session Classification: Lepton Flavor - I (9:00-10:50)

Contribution ID: **165**

Type: **not specified**

Precision Measurements with Pions: a review

Friday, 25 June 2010 10:20 (30 minutes)

Primary author: Dr NUMAO, Toshio (TRIUMF)

Presenter: Dr NUMAO, Toshio (TRIUMF)

Session Classification: Lepton Flavor - I (9:00-10:50)

Contribution ID: **166**

Type: **not specified**

Review on Neutrino Oscillations

Friday, 25 June 2010 11:20 (40 minutes)

Primary author: Prof. TAKASUMI, Maruyama (KEK)

Presenter: Prof. TAKASUMI, Maruyama (KEK)

Session Classification: Lepton Flavor - II (11:20-12:50)

Contribution ID: **167**

Type: **not specified**

Neutrinoless Double Beta Decay

Friday, 25 June 2010 12:00 (30 minutes)

Primary author: Dr BUCCI, Carlo (INFN, LNGS)

Presenter: Dr BUCCI, Carlo (INFN, LNGS)

Session Classification: Lepton Flavor - II (11:20-12:50)

Contribution ID: **168**

Type: **not specified**

Pion production in the HARP-PS214 Experiment at CERN-PS

Friday, 25 June 2010 12:30 (20 minutes)

Primary author: Dr MEZZETTO, Mauro (INFN Padova)

Presenter: Dr MEZZETTO, Mauro (INFN Padova)

Session Classification: Lepton Flavor - II (11:20-12:50)

Contribution ID: **169**

Type: **not specified**

Charmonium and Bottomonium Spectroscopy and Exotics

Friday, 25 June 2010 14:00 (30 minutes)

Primary author: Dr POLOSA, Antonio Davide (INFN Roma1)

Presenter: Dr POLOSA, Antonio Davide (INFN Roma1)

Session Classification: Quark Flavor Spectroscopy - I (14:00-15:30)

Contribution ID: 170

Type: **not specified**

Charmonium Results from BESIII

Friday, 25 June 2010 14:30 (20 minutes)

Primary author: Dr ZHANG, Jingzhi (IHEP, Beijing)

Presenter: Dr ZHANG, Jingzhi (IHEP, Beijing)

Session Classification: Quark Flavor Spectroscopy - I (14:00-15:30)

Contribution ID: 171

Type: **not specified**

Quarkonium Studies at BaBar

Friday, 25 June 2010 14:50 (20 minutes)

Primary author: Dr STRACKA, Simone (INFN Milano)

Presenter: Dr STRACKA, Simone (INFN Milano)

Session Classification: Quark Flavor Spectroscopy - I (14:00-15:30)

Contribution ID: 172

Type: **not specified**

Recent Results on Light Hadron Spectroscopy at BES

Friday, 25 June 2010 15:10 (20 minutes)

Primary author: Dr JI, Xiaobin (IHEP, Beijing)

Presenter: Dr JI, Xiaobin (IHEP, Beijing)

Session Classification: Quark Flavor Spectroscopy - I (14:00-15:30)

Contribution ID: 173

Type: **not specified**

Contribution of the MVD to the Charm Spectroscopy at PANDA

Friday, 25 June 2010 15:30 (20 minutes)

Primary author: Mr WÜRSCHIG, Thomas (HISKP, Uni Bonn)

Presenter: Mr WÜRSCHIG, Thomas (HISKP, Uni Bonn)

Session Classification: Quark Flavor Spectroscopy - II (15:30-16:40)

Contribution ID: 174

Type: **not specified**

Charm and Beauty production at RHIC

Friday, 25 June 2010 15:50 (30 minutes)

Primary author: Prof. KABANA, Sonia (SUBATECH)

Presenter: Prof. KABANA, Sonia (SUBATECH)

Session Classification: Quark Flavor Spectroscopy - II (15:30-16:40)

Contribution ID: 175

Type: **not specified**

The perfect opaque fluid at RHIC

Friday, 25 June 2010 16:20 (20 minutes)

Primary author: Dr TORRIERI, Giorgio (JW Goethe Universitat, Frankfurt)

Presenter: Dr TORRIERI, Giorgio (JW Goethe Universitat, Frankfurt)

Session Classification: Quark Flavor Spectroscopy - II (15:30-16:40)

Contribution ID: 176

Type: **not specified**

Target mass corrections for polarized structure functions

Tuesday, 22 June 2010 18:00 (20 minutes)

Primary author: Mrs TAHERI MONFARED, Sara (Semnan University)

Presenter: Mrs TAHERI MONFARED, Sara (Semnan University)

Session Classification: Hadron Production in Lepton Interactions - II (16:30-18:20)