

# **The Project X Physics Study**

## **Report of Contributions**

Contribution ID: 0

Type: **not specified**

## Physics at the Intensity Frontier

*Thursday, June 14, 2012 9:30 AM (1 hour)*

**Primary author:** GROSSMAN, Yuval (Cornell University)

**Presenter:** GROSSMAN, Yuval (Cornell University)

**Session Classification:** Plenary Session

Contribution ID: 1

Type: **not specified**

## Welcome

*Thursday, June 14, 2012 9:00 AM (10 minutes)*

**Presenter:** KIM, Young-Kee (FNAL)

**Session Classification:** Plenary Session

Contribution ID: 2

Type: **not specified**

## Charge

*Thursday, June 14, 2012 9:10 AM (20 minutes)*

**Presenter:** Dr TSCHIRHART, Robert (Fermilab)

**Session Classification:** Plenary Session

Contribution ID: 4

Type: **not specified**

## Plasmonic lasers

*Wednesday, June 20, 2012 4:00 PM (1 hour)*

**Presenter:** Prof. ZHANG, Xiang (UC Berkely)

**Session Classification:** Fermilab Colloquium

Contribution ID: 5

Type: **not specified**

## **Project X Physics Study: Summary and Outlook**

*Friday, June 22, 2012 4:00 PM (1 hour)*

**Presenter:** Dr TSCHIRHART, Robert (Fermilab)

**Session Classification:** Summary Session

Contribution ID: 6

Type: **not specified**

## **Project X: Accelerator Goals and Challenges**

*Friday, June 15, 2012 4:00 PM (1 hour)*

**Presenter:** HOLMES, Stephen (Fermilab)

**Session Classification:** Plenary Session

Contribution ID: 7

Type: **not specified**

## Muon physics

*Thursday, June 14, 2012 4:00 PM (30 minutes)*

**Primary author:** BABU, Ks (Oklahoma State)

**Co-authors:** KRIBS, Graham (Fermilab/U Oregon); Dr BERNSTEIN, Robert (Fermilab)

**Presenter:** BABU, Ks (Oklahoma State)

**Session Classification:** Plenary Session

**Track Classification:** Muon experiments



Contribution ID: 8

Type: **not specified**

## **Muon experiments**

*Thursday, June 14, 2012 4:30 PM (30 minutes)*

**Primary author:** Dr BERNSTEIN, Robert (Fermilab)

**Co-author:** KRIBS, Graham (Fermilab/U Oregon)

**Presenter:** Dr BERNSTEIN, Robert (Fermilab)

**Session Classification:** Plenary Session

**Track Classification:** Muon experiments

Contribution ID: 9

Type: **not specified**

## Neutron-antineutron Oscillation Theory

*Thursday, June 14, 2012 12:00 PM (30 minutes)*

**Primary author:** Prof. MOHAPATRA, Rabindra (University of Maryland)

**Co-authors:** Prof. YOUNG, Albert (North Carolina State University/Triangle Universities Nuclear Laboratory); Prof. QUIGG, Chris (Fermilab)

**Presenter:** Prof. MOHAPATRA, Rabindra (University of Maryland)

**Session Classification:** Plenary Session

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: **10**

Type: **not specified**

## **Hadron spectroscopy with Project X**

*Wednesday, June 20, 2012 9:45 AM (45 minutes)*

**Presenter:** GODFREY, Stephen

**Session Classification:** Summary Session

**Track Classification:** Hadronic physics

Contribution ID: 11

Type: **not specified**

## Lattice QCD Summary

*Wednesday, June 20, 2012 9:00 AM (45 minutes)*

**Primary author:** Dr KRONFELD, Andreas (Fermilab)

**Co-authors:** Dr VAN DE WATER, Ruth (Brookhaven National Laboratory); BLUM, Thomas

**Presenter:** Dr KRONFELD, Andreas (Fermilab)

**Session Classification:** Summary Session

**Track Classification:** Lattice QCD

Contribution ID: 12

Type: **not specified**

## Lattice QCD

*Thursday, June 14, 2012 11:00 AM (1 hour)*

**Primary author:** Dr VAN DE WATER, Ruth (Brookhaven National Laboratory)

**Co-author:** Prof. BLUM, Thomas

**Presenter:** Dr VAN DE WATER, Ruth (Brookhaven National Laboratory)

**Session Classification:** Plenary Session

**Track Classification:** Lattice QCD

Contribution ID: 13

Type: **not specified**

## Short-Baseline Neutrino Experiments

*Friday, June 15, 2012 8:20 AM (30 minutes)*

**Primary author:** SHAEVITZ, Mike (Columbia University)

**Presenter:** SHAEVITZ, Mike (Columbia University)

**Session Classification:** Plenary Session

**Track Classification:** Neutrino experiments

Contribution ID: 14

Type: **not specified**

## **Long-Baseline Neutrino Experiments**

*Friday, June 15, 2012 8:50 AM (30 minutes)*

**Primary author:** BISHAI, Mary (Brookhaven National Laboratory)

**Presenter:** BISHAI, Mary (Brookhaven National Laboratory)

**Session Classification:** Plenary Session

**Track Classification:** Neutrino experiments

Contribution ID: 15

Type: **not specified**

## Neutrino Detectors

*Friday, June 15, 2012 9:20 AM (40 minutes)*

**Primary author:** RAY, Heather

**Presenter:** RAY, Heather

**Session Classification:** Plenary Session

**Track Classification:** Neutrino detectors



Contribution ID: 16

Type: **not specified**

## Neutron-antineutron oscillation experiments

*Thursday, June 14, 2012 2:00 PM (30 minutes)*

**Primary author:** SNOW, William Michael (Indiana U.)

**Co-authors:** YOUNG, Albert (NC State); Prof. QUIGG, Chris (Fermilab)

**Presenter:** SNOW, William Michael (Indiana U.)

**Session Classification:** Plenary Session

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: 17

Type: **not specified**

## **Challenges and R&D issues for n-nbar detection**

*Thursday, June 14, 2012 2:30 PM (30 minutes)*

**Primary author:** GREENE, Geoffrey

**Co-authors:** SANCHEZ, Mayly (Iowa State University); Prof. KAMYSHKOV, Yuri (University of Tennessee)

**Presenter:** GREENE, Geoffrey

**Session Classification:** Plenary Session

**Track Classification:** Large-area, cost-effective detectors

Contribution ID: **18**

Type: **not specified**

## $K \rightarrow \pi \nu \bar{\nu}$ SM theory

**Presenter:** HAISCH, Ulrich (Oxford University)

**Track Classification:** Kaon experiments

Contribution ID: **19**

Type: **not specified**

## **SM Expectations for Rare Kaon Decays**

**Presenter:** BROD, Joachim (University of Cincinnati)

Contribution ID: 20

Type: **not specified**

## $K^{\pm} \rightarrow \pi^{\pm} \nu \bar{\nu}$ at NA62

**Presenter:** CENCI, Patrizia (INFN Perugia)

Contribution ID: 21

Type: **not specified**

## $K^+ \rightarrow \pi^+ \nu \bar{\nu}$ at ORKA

**Presenter:** JAFFE, David (Brookhaven)

Contribution ID: 22

Type: **not specified**

## K $\rightarrow$ pi nu nubar SM theory

*Monday, June 18, 2012 11:00 AM (45 minutes)*

**Primary author:** HAISCH, Ulrich (Oxford University)

**Presenter:** HAISCH, Ulrich (Oxford University)

**Session Classification:** Kaons

**Track Classification:** Kaon experiments

Contribution ID: 23

Type: **not specified**

## **SM predictions for rare K decays**

*Monday, June 18, 2012 11:45 AM (45 minutes)*

**Primary author:** BROD, Joachim (University of Cincinnati)

**Presenter:** BROD, Joachim (University of Cincinnati)

**Session Classification:** Kaons

**Track Classification:** Kaon experiments



Contribution ID: 24

Type: **not specified**

## **K+ -> pi+ nu nubar at NA62**

*Monday, June 18, 2012 4:00 PM (45 minutes)*

**Primary author:** CENCI, Patrizia (INFN Perugia)

**Presenter:** CENCI, Patrizia (INFN Perugia)

**Session Classification:** Kaons

**Track Classification:** Kaon experiments

Contribution ID: 25

Type: **not specified**

## $K^+ \rightarrow \pi^+ \nu \bar{\nu}$ at ORKA

*Monday, June 18, 2012 4:45 PM (45 minutes)*

**Primary author:** JAFFE, David (Brookhaven)

**Presenter:** JAFFE, David (Brookhaven)

**Session Classification:** Kaons

**Track Classification:** Kaon experiments

Contribution ID: 26

Type: **not specified**

## **K decays beyond the SM: SUSY**

*Tuesday, June 19, 2012 9:00 AM (45 minutes)*

**Primary author:** ALTMANNSHOFER, Wolfgang (Fermilab)

**Presenter:** ALTMANNSHOFER, Wolfgang (Fermilab)

**Session Classification:** Kaons

**Track Classification:** Kaon experiments

Contribution ID: 27

Type: **not specified**

## **K decays beyond the SM: extra dimensions**

*Tuesday, June 19, 2012 2:45 PM (45 minutes)*

**Primary author:** GORI, Stefania (University of Chicago)

**Presenter:** GORI, Stefania (University of Chicago)

**Session Classification:** Kaons

**Track Classification:** Kaon experiments

Contribution ID: 28

Type: **not specified**

## $K^0 \rightarrow \pi^0 \nu \bar{\nu}$ KOTO

*Tuesday, June 19, 2012 11:00 AM (45 minutes)*

**Primary author:** WAH, Yau (University of Chicago)

**Presenter:** WAH, Yau (University of Chicago)

**Session Classification:** Kaons

**Track Classification:** Kaon experiments

Contribution ID: 29

Type: **not specified**

## **K0 -> pi0 nu nubar at Project X**

*Tuesday, June 19, 2012 11:45 AM (45 minutes)*

**Primary author:** Dr LITTENBERG, Laurence (Brookhaven)

**Presenter:** Dr LITTENBERG, Laurence (Brookhaven)

**Session Classification:** Kaons

**Track Classification:** Kaon experiments

Contribution ID: 30

Type: **not specified**

## **Radiative K decays and $K \rightarrow \pi \ell$**

*Tuesday, June 19, 2012 2:00 PM (45 minutes)*

**Primary author:** MERTENS, Philippe (University Catholique de Louvain)

**Presenter:** MERTENS, Philippe (University Catholique de Louvain)

**Session Classification:** Kaons

**Track Classification:** Kaon experiments

Contribution ID: 31

Type: **not specified**

## Electric Dipole Moments

*Friday, June 15, 2012 2:10 PM (40 minutes)*

**Primary author:** FILIPPONE, Brad (CalTech)

**Co-authors:** Prof. GARDNER, Susan (U Kentucky); CHUPP, Tim (U Michigan); Dr LU, Zheng-Tian (ANL)

**Presenter:** FILIPPONE, Brad (CalTech)

**Session Classification:** Plenary Session

**Track Classification:** Electric dipole moments



Contribution ID: 32

Type: **not specified**

## **Large-area cost-effective n-nbar detectors**

*Friday, June 22, 2012 11:00 AM (25 minutes)*

**Primary authors:** SANCHEZ, Mayly (Iowa State University); Prof. KAMYSHKOV, Yuri (University of Tennessee)

**Presenters:** SANCHEZ, Mayly (Iowa State University); Prof. KAMYSHKOV, Yuri (University of Tennessee)

**Session Classification:** Summary Session

**Track Classification:** Large-area, cost-effective detectors

Contribution ID: **33**

Type: **not specified**

## **Hadronic physics experiments**

*Friday, June 15, 2012 1:30 PM (40 minutes)*

**Presenter:** REIMER, Paul (ANL)

**Session Classification:** Plenary Session

**Track Classification:** Hadronic physics

Contribution ID: **34**

Type: **not specified**

## Neutrino Theory

*Friday, June 15, 2012 2:50 PM (40 minutes)*

**Co-author:** Prof. HUBER, Patrick (Virginia Tech)

**Presenter:** Prof. LINDNER, Manfred (MPI Heidelberg)

**Session Classification:** Plenary Session

**Track Classification:** Neutrino experiments

Contribution ID: 35

Type: **not specified**

## **New prospects and challenges for large proton decay detectors**

*Friday, June 15, 2012 11:10 AM (20 minutes)*

**Primary author:** Prof. KEARNS, Ed (Boston University)

**Co-authors:** SANCHEZ, Mayly (Iowa State University); Prof. KAMYSHKOV, Yuri (University of Tennessee)

**Presenter:** Prof. KEARNS, Ed (Boston University)

**Session Classification:** Plenary Session

**Track Classification:** Large-area, cost-effective detectors

Contribution ID: **36**

Type: **not specified**

## **Kaon physics**

*Friday, June 15, 2012 11:30 AM (40 minutes)*

**Presenter:** Prof. BRYMAN, Douglas (University of British Columbia)

**Session Classification:** Plenary Session

Contribution ID: 37

Type: **not specified**

## Tracking

*Thursday, June 14, 2012 5:30 PM (30 minutes)*

**Primary author:** Prof. RITCHIE, Jack (University of Texas at Austin)

**Co-author:** Dr LIPTON, Ronald (Fermilab)

**Presenter:** Prof. RITCHIE, Jack (University of Texas at Austin)

**Session Classification:** Plenary Session

**Track Classification:** Tracking

Contribution ID: **38**

Type: **not specified**

## **Hadron spectroscopy**

**Presenter:** Prof. GODFREY, Stephen (Carleton U.)

**Track Classification:** Hadronic physics

Contribution ID: 39

Type: **not specified**

## Calorimetry

*Thursday, June 14, 2012 5:00 PM (30 minutes)*

**Primary author:** Prof. HITLIN, David (Caltech)

**Co-author:** Dr DIWAN, Milind (BNL)

**Presenter:** Prof. HITLIN, David (Caltech)

**Session Classification:** Plenary Session

**Track Classification:** EM calorimetry



Contribution ID: 40

Type: **not specified**

## Time of flight

*Thursday, June 14, 2012 3:00 PM (30 minutes)*

**Primary author:** WAGNER, Bob (Argonne National Laboratory)

**Co-author:** Dr ALBROW, Michael (Fermi National Accelerator Laboratory)

**Presenter:** WAGNER, Bob (Argonne National Laboratory)

**Session Classification:** Plenary Session

**Track Classification:** Time of flight

Contribution ID: 41

Type: **not specified**

## **Kaon physics summary**

*Thursday, June 21, 2012 11:10 AM (35 minutes)*

**Presenter:** CIRIGLIANO, Vincenzo (LANL)

**Session Classification:** Summary Session

Contribution ID: 42

Type: **not specified**

## **Kaon experiments summary**

*Thursday, June 21, 2012 11:45 AM (35 minutes)*

**Presenter:** Prof. PITTS, Kevin (University of Illinois)

**Session Classification:** Summary Session

Contribution ID: 43

Type: **not specified**

## EDM LHC EDM

*Saturday, June 16, 2012 10:00 AM (30 minutes)*

**Presenter:** BLUM, Kfir (Institute for Advanced Study)

**Session Classification:** EDM

**Track Classification:** Electric dipole moments

Contribution ID: 44

Type: **not specified**

# A Sensitive Storage Ring Proton EDM experiment at FNAL

*Saturday, June 16, 2012 9:00 AM (30 minutes)*

**Presenter:** Dr SEMERTZIDIS, Yannis K (Brookhaven National Laboratory)

**Session Classification:** EDM

**Track Classification:** Electric dipole moments

Contribution ID: 45

Type: **not specified**

## **A concept for intense yields of Rn, Fr, and Ra isotopes at Project X**

*Saturday, June 16, 2012 2:00 PM (25 minutes)*

**Presenter:** Dr NOLEN, Jerry (Physics Division, Argonne National Laboratory)

**Session Classification:** EDM

**Track Classification:** Electric dipole moments

Contribution ID: 46

Type: **not specified**

## **Search for the EDM of Ra-225**

*Saturday, June 16, 2012 2:30 PM (25 minutes)*

**Presenter:** Dr DIETRICH, Matthew (Physics Division, Argonne National Laboratory)

**Session Classification:** EDM

**Track Classification:** Electric dipole moments

Contribution ID: 47

Type: **not specified**

## **Discussion: Fundamental Symmetries and EDM Prospects at Project X**

*Saturday, June 16, 2012 3:00 PM (25 minutes)*

**Presenter:** Prof. CHUPP, Tim (University of Michigan)

**Session Classification:** EDM



Contribution ID: 48

Type: **not specified**

## Theory of EDMs

*Saturday, June 16, 2012 9:30 AM (30 minutes)*

**Presenter:** GARDNER, Susan (University of Kentucky)

**Session Classification:** EDM

**Track Classification:** Electric dipole moments

Contribution ID: 49

Type: **not specified**

## Neutron EDM from Lattice QCD

*Saturday, June 16, 2012 11:30 AM (20 minutes)*

**Primary author:** SHINTANI, Eigo (RIKEN-BNL)

**Presenter:** SHINTANI, Eigo (RIKEN-BNL)

**Session Classification:** Lattice QCD

**Track Classification:** Lattice QCD

Contribution ID: 50

Type: **not specified**

## Tracking Requirements in rare K decay experiments

*Saturday, June 16, 2012 11:00 AM (30 minutes)*

**Presenter:** Prof. RITCHIE, Jack (University of Texas at Austin)

**Session Classification:** Tracking

**Track Classification:** Tracking

Contribution ID: 51

Type: **not specified**

## **Neutron Electric Dipole Moment in the Standard Model and beyond from Lattice QCD**

*Saturday, June 16, 2012 12:00 PM (20 minutes)*

**Primary author:** BHATTACHARYA, Tanmoy (Los Alamos National Laboratory)

**Presenter:** BHATTACHARYA, Tanmoy (Los Alamos National Laboratory)

**Session Classification:** Lattice QCD

**Track Classification:** Lattice QCD

Contribution ID: 52

Type: **not specified**

## Proton Decay Matrix Elements from Lattice QCD

*Saturday, June 16, 2012 4:00 PM (20 minutes)*

**Primary author:** IZUBUCHI, Taku (Brookhaven National Laboratory)

**Presenter:** IZUBUCHI, Taku (Brookhaven National Laboratory)

**Session Classification:** Lattice QCD

Contribution ID: 53

Type: **not specified**

## **Probing TeV Physics through Lattice Neutron-Decay Matrix Elements**

*Saturday, June 16, 2012 4:30 PM (20 minutes)*

**Primary author:** COHEN, Saul (University of Washington)

**Presenter:** COHEN, Saul (University of Washington)

**Session Classification:** Lattice QCD

Contribution ID: 54

Type: **not specified**

## Computing $K \rightarrow \pi\pi$ decay and the KL-KS mass difference from lattice QCD

*Monday, June 18, 2012 2:45 PM (30 minutes)*

**Primary author:** CHRIST, Norman (Columbia University)

**Presenter:** CHRIST, Norman (Columbia University)

**Session Classification:** Lattice QCD

Contribution ID: 55

Type: **not specified**

## **Status of pion and kaon physics from Lattice QCD**

*Monday, June 18, 2012 2:00 PM (35 minutes)*

**Primary author:** LAIHO, Jack (University of Glasgow)

**Presenter:** LAIHO, Jack (University of Glasgow)

**Session Classification:** Lattice QCD



Contribution ID: 56

Type: **not specified**

## **Hadronic vacuum polarization contribution to muon $g-2$ using staggered fermions**

*Monday, June 18, 2012 9:00 AM (20 minutes)*

**Primary author:** AUBIN, Christopher (Fordham University)

**Presenter:** AUBIN, Christopher (Fordham University)

**Session Classification:** Lattice QCD

Contribution ID: 57

Type: **not specified**

## **Hadronic vacuum polarization to muon $g-2$ using twisted-mass fermions**

*Monday, June 18, 2012 9:30 AM (20 minutes)*

**Primary author:** RENNER, Dru (Jefferson Lab)

**Presenter:** RENNER, Dru (Jefferson Lab)

**Session Classification:** Lattice QCD

Contribution ID: 58

Type: **not specified**

## **Hadronic light-by-light contribution to muon $g-2$ from Lattice QCD**

*Monday, June 18, 2012 10:00 AM (20 minutes)*

**Primary author:** BLUM, Thomas

**Presenter:** BLUM, Thomas

**Session Classification:** Lattice QCD

Contribution ID: 59

Type: **not specified**

## The anomaly triangle and g-2

*Tuesday, June 19, 2012 9:00 AM (20 minutes)*

**Primary author:** PERIS, Santi (Universitat Autònoma de Barcelona)

**Presenter:** PERIS, Santi (Universitat Autònoma de Barcelona)

**Session Classification:** Lattice QCD

Contribution ID: **60**

Type: **not specified**

## **Neutral pion to two-photon decays from Lattice QCD**

*Tuesday, June 19, 2012 9:30 AM (20 minutes)*

**Primary author:** COHEN, Saul (University of Washington)

**Presenter:** COHEN, Saul (University of Washington)

**Session Classification:** Lattice QCD

Contribution ID: 61

Type: **not specified**

## **New methods for lattice-QCD calculations of the hadronic light-by-light contribution to $g-2$**

*Tuesday, June 19, 2012 10:00 AM (20 minutes)*

**Primary author:** IZUBUCHI, Taku (Brookhaven National Laboratory)

**Presenter:** IZUBUCHI, Taku (Brookhaven National Laboratory)

**Session Classification:** Lattice QCD

Contribution ID: 62

Type: **not specified**

## **EDM of the nucleon and light nuclei in Chiral Effective Theory**

*Saturday, June 16, 2012 11:00 AM (20 minutes)*

**Primary author:** MEREGHETTI, Emanuele (Lawrence Berkeley National Laboratory)

**Presenter:** MEREGHETTI, Emanuele (Lawrence Berkeley National Laboratory)

**Session Classification:** Lattice QCD

**Track Classification:** Lattice QCD

Contribution ID: **63**

Type: **not specified**

## **Future computing resources for lattice gauge theory**

*Tuesday, June 19, 2012 2:00 PM (20 minutes)*

**Primary author:** HOLMGREN, Don (Fermi National Accelerator Laboratory)

**Presenter:** HOLMGREN, Don (Fermi National Accelerator Laboratory)

**Session Classification:** Lattice QCD



Contribution ID: 64

Type: **not specified**

## **High-precision measurements of $g_A$ and $g_V$ in neutron decay**

*Saturday, June 16, 2012 5:00 PM (20 minutes)*

**Primary author:** PLASTER, Brad (University of Kentucky)

**Presenter:** PLASTER, Brad (University of Kentucky)

**Session Classification:** Lattice QCD

Contribution ID: 65

Type: **not specified**

## **PMT response studies**

*Saturday, June 16, 2012 11:00 AM (15 minutes)*

**Presenter:** GRULLON, Sean (Penn)

**Session Classification:** Large-area, cost-effective detectors

Contribution ID: **66**

Type: **not specified**

## **Light Collectors for Water Cherenkov**

*Saturday, June 16, 2012 11:15 AM (15 minutes)*

**Presenter:** Dr PERASSO, Stefano (Drexel University)

**Session Classification:** Large-area, cost-effective detectors

Contribution ID: 67

Type: **not specified**

## **PMT pressure tests**

*Saturday, June 16, 2012 11:30 AM (15 minutes)*

**Presenter:** LING, Jiaye (BNL)

**Session Classification:** Large-area, cost-effective detectors

Contribution ID: **68**

Type: **not specified**

## **LAPPD R&D status**

*Saturday, June 16, 2012 11:45 AM (15 minutes)*

**Presenter:** ELAGIN, Andrey

**Session Classification:** Large-area, cost-effective detectors

Contribution ID: 69

Type: **not specified**

## **Photocathodes R&D for LAPPD**

*Wednesday, June 20, 2012 11:50 AM (20 minutes)*

**Primary author:** XIE, Junqui (Argonne National Laboratory)

**Presenter:** XIE, Junqui (Argonne National Laboratory)

**Session Classification:** Large-area, cost-effective detectors

Contribution ID: 70

Type: **not specified**

## **Water soluble scintillator**

*Saturday, June 16, 2012 12:00 PM (15 minutes)*

**Presenter:** Dr YEH, Minfang (Brookhaven National Laboratory)

**Session Classification:** Large-area, cost-effective detectors

Contribution ID: 71

Type: **not specified**

## Liquid Argon R&D status

*Saturday, June 16, 2012 4:00 PM (20 minutes)*

**Primary author:** Dr REBEL, Brian (Fermilab)

**Presenter:** Dr REBEL, Brian (Fermilab)

**Session Classification:** Large-area, cost-effective detectors

**Track Classification:** Large-area, cost-effective detectors



Contribution ID: 72

Type: **not specified**

## Introduction

*Saturday, June 16, 2012 11:00 AM (10 minutes)*

**Primary author:** Prof. HITLIN, David (Caltech)

**Presenter:** Prof. HITLIN, David (Caltech)

**Session Classification:** EM calorimetry

**Track Classification:** EM calorimetry

Contribution ID: 73

Type: **not specified**

## **Absolute calibration of SiPMs for LAr**

*Saturday, June 16, 2012 4:20 PM (15 minutes)*

**Presenter:** ESCOBAR, Carlos (FERMILAB)

**Session Classification:** Large-area, cost-effective detectors

Contribution ID: 75

Type: **not specified**

## **LAr reconstruction**

*Saturday, June 16, 2012 4:35 PM (15 minutes)*

**Presenter:** Dr KIRBY, Michael (FNAL)

**Session Classification:** Large-area, cost-effective detectors

Contribution ID: 76

Type: **not specified**

**(reserved)**

Contribution ID: 77

Type: **not specified**

## **mu to e gamma (converted), eee**

*Saturday, June 16, 2012 11:30 AM (25 minutes)*

**Presenter:** DEJONGH, Fritz (Fermilab)

**Session Classification:** EM calorimetry

**Track Classification:** EM calorimetry

Contribution ID: 78

Type: **not specified**

## Option for an N-Nbar annihilation detector

*Saturday, June 16, 2012 4:50 PM (20 minutes)*

**Presenter:** Prof. TAYLOE, Rex (Indiana University)

**Session Classification:** Large-area, cost-effective detectors

Contribution ID: 79

Type: **not specified**

## **Mu2e calorimeter design and extrapolation**

*Saturday, June 16, 2012 11:55 AM (25 minutes)*

**Presenter:** Prof. HITLIN, David (Caltech)

**Session Classification:** EM calorimetry

**Track Classification:** EM calorimetry

Contribution ID: **80**

Type: **not specified**

## **New crystal development**

*Saturday, June 16, 2012 4:00 PM (25 minutes)*

**Presenter:** Dr ZHU, Ren-yuan (Caltech)

**Session Classification:** EM calorimetry



Contribution ID: **81**

Type: **not specified**

## **Water Cherenkov reconstruction status**

*Monday, June 18, 2012 9:00 AM (20 minutes)*

**Presenter:** Dr JUNK, Thomas (Fermilab)

**Session Classification:** Large-area, cost-effective detectors

**Track Classification:** Large-area, cost-effective detectors

Contribution ID: **82**

Type: **not specified**

## **Water Ch Reco with Fast timing**

*Monday, June 18, 2012 9:20 AM (20 minutes)*

**Primary author:** Dr WETSTEIN, Matt (University of Chicago/ANL)

**Presenter:** Dr WETSTEIN, Matt (University of Chicago/ANL)

**Session Classification:** Large-area, cost-effective detectors

**Track Classification:** Large-area, cost-effective detectors

Contribution ID: **83**

Type: **not specified**

## **PbF2/SiPM beam test**

*Saturday, June 16, 2012 4:25 PM (25 minutes)*

**Presenter:** Dr WINTER, Peter (U of Washington)

**Session Classification:** EM calorimetry

Contribution ID: **84**

Type: **not specified**

## Discussion

*Saturday, June 16, 2012 5:00 PM (30 minutes)*

**Session Classification:** EM calorimetry

**Track Classification:** EM calorimetry

Contribution ID: 85

Type: **not specified**

## **Water Ch Reconstruction with Chroma**

*Monday, June 18, 2012 9:40 AM (20 minutes)*

**Presenter:** SEIBERT, Stan (University of Pennsylvania)

**Session Classification:** Large-area, cost-effective detectors

Contribution ID: **86**

Type: **not specified**

## **Generator for antineutron-carbon annihilation**

*Saturday, June 16, 2012 12:15 PM (20 minutes)*

**Presenter:** GANEZER, Ken (CSUDH)

**Session Classification:** Large-area, cost-effective detectors

**Track Classification:** Large-area, cost-effective detectors

Contribution ID: 87

Type: **not specified**

## **Super-mirrors and neutron focusing**

*Monday, June 18, 2012 4:00 PM (30 minutes)*

**Presenter:** SHIMIZU, H. (Nagoya)

**Session Classification:** Neutron-antineutron oscillations

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: **88**

Type: **not specified**

## **Kaon experiment calorimetry requirements**

*Monday, June 18, 2012 8:50 AM (25 minutes)*

**Presenter:** Dr LITTENBERG, Laurence (BNL)

**Session Classification:** EM calorimetry



Contribution ID: **89**

Type: **not specified**

## **Grooved moderator for N-Nbar-X**

*Monday, June 18, 2012 4:30 PM (15 minutes)*

**Presenter:** LIU

**Session Classification:** Neutron-antineutron oscillations

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: **90**

Type: **not specified**

## **ORKA calorimeter - I**

*Monday, June 18, 2012 9:15 AM (25 minutes)*

**Presenter:** GATTO, Corrado (INFN)

**Session Classification:** EM calorimetry

Contribution ID: **91**

Type: **not specified**

## **Cold and ultra-cold source R&D**

*Monday, June 18, 2012 4:45 PM (15 minutes)*

**Presenter:** LIU, C.-Y. (Indiana)

**Session Classification:** Neutron-antineutron oscillations

Contribution ID: 92

Type: **not specified**

## **NNbarX magnetic shielding**

**Presenter:** SNOW, Mike (Indiana)

Contribution ID: 93

Type: **not specified**

## TPC tracker and magnetic shield for NNbar

*Monday, June 18, 2012 5:00 PM (15 minutes)*

**Presenter:** BANERJEE, Sunanda (Tata Institute of Fundamental Research)

**Session Classification:** Neutron-antineutron oscillations

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: 94

Type: **not specified**

## **KOPIO preradiator and calorimeter**

*Monday, June 18, 2012 2:00 PM (25 minutes)*

**Presenter:** Dr POBLAGUEV, Andrei (Yale)

**Session Classification:** EM calorimetry

Contribution ID: 95

Type: **not specified**

## **Teflon-based scintillator**

*Monday, June 18, 2012 2:25 PM (25 minutes)*

**Presenter:** Dr YEH, Minfang (Brookhaven National Laboratory)

**Session Classification:** EM calorimetry

Contribution ID: **96**

Type: **not specified**

## **KTeV CsI calorimeter**

*Monday, June 18, 2012 2:50 PM (25 minutes)*

**Presenter:** WORCESTER, Elizabeth (BNL)

**Session Classification:** EM calorimetry



Contribution ID: 97

Type: **not specified**

## Discussion

*Monday, June 18, 2012 3:25 PM (30 minutes)*

**Session Classification:** EM calorimetry

Contribution ID: 98

Type: **not specified**

## **Overview of free neutron-antineutron search experiment at ILL in 1991**

**Presenter:** DUBBERS, D. (Heidelberg)

Contribution ID: 99

Type: **not specified**

## Overview of possible NNbarX configurations

**Presenter:** Prof. KAMYSHKOV, Yuri (University of Tennessee)

Contribution ID: **100**

Type: **not specified**

## **Spallation target infrastructure at SNS**

*Monday, June 18, 2012 2:20 PM (20 minutes)*

**Presenter:** GABRIEL, T. (UTK/ORNL)

**Session Classification:** Large-area, cost-effective detectors

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: **101**

Type: **not specified**

## **Design considerations for the NNbarX source**

*Monday, June 18, 2012 2:40 PM (25 minutes)*

**Presenter:** MUHRER, G (LANL)

**Session Classification:** Large-area, cost-effective detectors

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: **102**

Type: **not specified**

## **Gadolinium**

*Wednesday, June 20, 2012 11:00 AM (20 minutes)*

**Presenter:** Prof. VAGINS, Mark (UC Irvine, Institute for Physics and Mathematics of the Universe)

**Session Classification:** Large-area, cost-effective detectors

Contribution ID: **103**

Type: **not specified**

## **Light collection for LAr**

**Presenter:** MUFSON, Stuart (Indiana U)

Contribution ID: **104**

Type: **not specified**

## **LENA Experiment**

*Wednesday, June 20, 2012 11:20 AM (30 minutes)*

**Presenter:** TIPPMAN, Marc (TUM)

**Session Classification:** Large-area, cost-effective detectors

**Track Classification:** Large-area, cost-effective detectors



Contribution ID: **105**

Type: **not specified**

## Neutrino physics

*Thursday, June 21, 2012 2:20 PM (1 hour)*

**Presenter:** Prof. HUBER, Patrick (Virginia Tech)

**Session Classification:** Summary Session

Contribution ID: **106**

Type: **not specified**

## **Mu2e Tracker**

*Saturday, June 16, 2012 11:30 AM (30 minutes)*

Tracking requirements in rare mu decay experiments / mu2e experiment

**Primary author:** Dr MUKHERJEE, Aseet (Fermilab)

**Session Classification:** Tracking

**Track Classification:** Tracking

Contribution ID: **107**

Type: **not specified**

## Neutrino detector summary

*Thursday, June 21, 2012 4:00 PM (45 minutes)*

**Primary author:** Prof. TAYLOE, Rex (Indiana University)

**Co-authors:** Prof. MCFARLAND, Kevin (University of Rochester); Dr JONGHEE, Yoo (Fermi National Accelerator Laboratory)

**Presenter:** Prof. TAYLOE, Rex (Indiana University)

**Session Classification:** Summary Session

**Track Classification:** Neutrino detectors

Contribution ID: **108**

Type: **not specified**

## **The Intensity Frontier at Snowmass 2013**

*Friday, June 15, 2012 10:40 AM (30 minutes)*

**Presenter:** Prof. WEERTS, Hendrik (Argonne National Laboratory)

**Session Classification:** Plenary Session

Contribution ID: **109**

Type: **not specified**

## European Program

*Saturday, June 16, 2012 9:00 AM (45 minutes)*

**Presenter:** Prof. RUBBIA, Andre

**Session Classification:** Neutrino physics and detectors

Contribution ID: **110**

Type: **not specified**

## **NuSTORM**

*Saturday, June 16, 2012 9:45 AM (45 minutes)*

**Presenter:** BROSS, Alan

**Session Classification:** Neutrino physics and detectors

Contribution ID: **111**

Type: **not specified**

## **LBNE plans**

*Saturday, June 16, 2012 11:00 AM (45 minutes)*

**Presenter:** STRAIT, James (FNAL)

**Session Classification:** Neutrino physics and detectors

Contribution ID: **112**

Type: **not specified**

## **Hyper-K status**

*Saturday, June 16, 2012 11:45 AM (45 minutes)*

**Presenter:** SHIOZAWA, Masato

**Session Classification:** Neutrino physics and detectors



Contribution ID: **113**

Type: **not specified**

## **Systematics in LBL experiments**

*Saturday, June 16, 2012 2:00 PM (45 minutes)*

**Presenter:** COLOMA, Pilar

**Session Classification:** Neutrino physics and detectors

Contribution ID: **114**

Type: **not specified**

## Cross sections

Contribution ID: **115**

Type: **not specified**

## **IceCube**

*Monday, June 18, 2012 9:00 AM (45 minutes)*

**Presenter:** MOCIOIU, Irina

**Session Classification:** Neutrino physics and detectors

Contribution ID: **116**

Type: **not specified**

## **INO**

*Monday, June 18, 2012 9:45 AM (45 minutes)*

**Presenter:** CHOUDHARY, Brajesh

**Session Classification:** Neutrino physics and detectors

Contribution ID: **117**

Type: **not specified**

## **Physics reach of current LBL experiments**

*Monday, June 18, 2012 2:00 PM (45 minutes)*

**Presenter:** PATTERSON, Ryan (Caltech)

**Session Classification:** Neutrino physics and detectors

Contribution ID: **118**

Type: **not specified**

## **Status of T2K and J-PARC**

*Monday, June 18, 2012 2:45 PM (45 minutes)*

**Presenter:** KOBAYASHI, Takashi

**Session Classification:** Neutrino physics and detectors

Contribution ID: **119**

Type: **not specified**

## **MINOS+**

*Tuesday, June 19, 2012 9:00 AM (45 minutes)*

**Presenter:** SOUSA, Alexandre

**Session Classification:** Neutrino physics and detectors

Contribution ID: **120**

Type: **not specified**

## **MiniBooNE**

*Tuesday, June 19, 2012 9:45 AM (45 minutes)*

**Presenter:** GRANGE, Joe (University of Florida)

**Session Classification:** Neutrino physics and detectors



Contribution ID: **121**

Type: **not specified**

## **BooNE+**

*Tuesday, June 19, 2012 11:00 AM (45 minutes)*

**Presenter:** Dr PAVLOVIC, Zarko (Los Alamos National Lab)

**Session Classification:** Neutrino physics and detectors

Contribution ID: **122**

Type: **not specified**

## **DAR/SNS**

*Tuesday, June 19, 2012 11:45 AM (45 minutes)*

**Presenter:** LOUIS, William (LANL)

**Session Classification:** Neutrino physics and detectors

Contribution ID: **123**

Type: **not specified**

## **LBNE + PX**

*Tuesday, June 19, 2012 2:30 PM (45 minutes)*

**Presenter:** ISVAN, Zeynep

**Session Classification:** Neutrino physics and detectors

Contribution ID: **124**

Type: **not specified**

## **NSI**

*Wednesday, June 20, 2012 2:40 PM (30 minutes)*

**Presenter:** FRIEDLAND, Alexander (Los Alamos National Lab)

**Session Classification:** Neutrino physics and detectors

Contribution ID: 125

Type: **not specified**

## **New interactions in the neutrino sector**

*Wednesday, June 20, 2012 3:10 PM (30 minutes)*

**Presenter:** Dr KOPP, Joachim (Fermilab)

**Session Classification:** Neutrino physics and detectors

Contribution ID: 126

Type: **not specified**

## Supernova and low energy neutrinos

*Wednesday, June 20, 2012 1:00 PM (40 minutes)*

**Presenter:** SCHOLBERG, Kate (Duke University)

**Session Classification:** Neutrino physics and detectors

Contribution ID: **127**

Type: **not specified**

## **Dark sector searches**

*Wednesday, June 20, 2012 2:10 PM (30 minutes)*

**Presenter:** BATELL, Brian (Perimeter Institute)

**Session Classification:** Neutrino physics and detectors

Contribution ID: **128**

Type: **not specified**

## **MicroBoonE/LarLar**

*Thursday, June 21, 2012 9:00 AM (55 minutes)*

**Presenter:** CAVANNA, Flavio

**Session Classification:** Neutrino physics and detectors



Contribution ID: **129**

Type: **not specified**

## **Event reconstruction in LAr**

*Thursday, June 21, 2012 9:55 AM (45 minutes)*

**Presenter:** Dr REBEL, Brian (Fermilab)

**Session Classification:** Neutrino physics and detectors

Contribution ID: 130

Type: **not specified**

# **The Physics Potential of a Large Liq-Ar Atmospheric Detector**

*Monday, June 18, 2012 11:40 AM (40 minutes)*

**Presenter:** GANDHI, Raj

**Session Classification:** Neutrino physics and detectors

Contribution ID: 131

Type: **not specified**

## **Theoretical motivation for neutron-antineutron oscillations**

*Saturday, June 16, 2012 9:00 AM (25 minutes)*

**Primary author:** Prof. MOHAPATRA, Rabindra (University of Maryland)

**Session Classification:** Neutron-antineutron oscillations

Contribution ID: 132

Type: **not specified**

## **New processes at LHC and neutron-antineutron oscillations**

*Saturday, June 16, 2012 9:25 AM (15 minutes)*

**Presenter:** Prof. GOGOLADZE, Ilia

**Session Classification:** Neutron-antineutron oscillations

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: 133

Type: **not specified**

## **Experimental searches for neutron-antineutron oscillations in nuclei**

*Saturday, June 16, 2012 9:40 AM (20 minutes)*

**Presenter:** Prof. KEARNS, Ed (Boston University)

**Session Classification:** Neutron-antineutron oscillations

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: 134

Type: **not specified**

## **Neutron-antineutron oscillations vs nuclei stability**

*Saturday, June 16, 2012 10:00 AM (15 minutes)*

**Presenter:** Prof. VAINSHTEIN, Arkady (University of Minnesota)

**Session Classification:** Neutron-antineutron oscillations

Contribution ID: 135

Type: **not specified**

## **Future neutron-antineutron intranuclear searches vs vacuum oscillations**

*Saturday, June 16, 2012 10:15 AM (15 minutes)*

**Presenter:** Prof. KAMYSHKOV, Yuri (University of Tennessee)

**Session Classification:** Neutron-antineutron oscillations

Contribution ID: 136

Type: **not specified**

## **Neutron-antineutron oscillations with free neutrons**

*Saturday, June 16, 2012 2:00 PM (15 minutes)*

**Presenter:** Prof. SNOW, W. M. (Indiana University)

**Session Classification:** Neutron-antineutron oscillations



Contribution ID: 137

Type: **not specified**

# Leptogenesis and Fundamental Symmetries of Nature

*Saturday, June 16, 2012 2:15 PM (20 minutes)*

**Presenter:** Prof. CHEN, Mu-chun (University of California, Irvine)

**Session Classification:** Neutron-antineutron oscillations

Contribution ID: 138

Type: **not specified**

## **Baryogenesis and neutron-antineutron oscillations**

*Saturday, June 16, 2012 2:35 PM (25 minutes)*

**Presenter:** BABU, Ks (Oklahoma State)

**Session Classification:** Neutron-antineutron oscillations

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: 139

Type: **not specified**

## **Skyrme suppression or enhancement of neutron-antineutron oscillations**

*Saturday, June 16, 2012 3:00 PM (15 minutes)*

**Presenter:** Dr STAVENGA, Gerben (Fermilab)

**Session Classification:** Neutron-antineutron oscillations

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: 140

Type: **not specified**

## **Lattice calculations of neutron-antineutron matrix elements**

*Saturday, June 16, 2012 3:15 PM (15 minutes)*

**Presenter:** Dr BUCHOFF, Michael (Lawrence Livermore National Laboratory)

**Session Classification:** Neutron-antineutron oscillations

Contribution ID: **141**

Type: **not specified**

## **Scintillator Detectors**

**Presenter:** Dr YEH, M

Contribution ID: 142

Type: **not specified**

## **MINERvA and nu-e elastic scattering**

Contribution ID: 143

Type: **not specified**

## PIENU and PEN

*Monday, June 18, 2012 10:30 AM (30 minutes)*

**Primary author:** NUMAO, Toshio (TRIUMF)

**Presenter:** NUMAO, Toshio (TRIUMF)

**Session Classification:** Muons

**Track Classification:** Muon experiments

Contribution ID: **147**

Type: **not specified**

## **joint with EDM**

**Track Classification:** Muon experiments



Contribution ID: 149

Type: **not specified**

## **Nuclear Physics Aspects of the Exotic Muon-to-Electron Conversion in Nuclei**

*Monday, June 18, 2012 4:00 PM (30 minutes)*

**Presenter:** KOSMAS, Haris

**Session Classification:** Muons

**Track Classification:** Muon experiments

Contribution ID: 150

Type: **not specified**

## **Probing Neutrino Models in Extra Dimensions with Muon-to-Electron Conversion**

*Monday, June 18, 2012 4:30 PM (30 minutes)*

**Primary author:** CHANG, We-Fu (National Tsing Hua University)

**Presenter:** CHANG, We-Fu (National Tsing Hua University)

**Session Classification:** Muons

**Track Classification:** Muon experiments

Contribution ID: **151**

Type: **not specified**

## **Warped Penguins and LFV**

**Presenter:** TSAI, Yu-hsin (Cornell University)

**Track Classification:** Muon experiments

Contribution ID: 152

Type: **not specified**

## Stage 1 CW Linac and the Muon Campus

*Saturday, June 16, 2012 2:00 PM (30 minutes)*

**Presenters:** Dr POLLY, Chris (Fermilab); KADUCAK, Marc (Fermilab)

**Session Classification:** Muons

**Track Classification:** Muon experiments

Contribution ID: 153

Type: **not specified**

## **Linac Studies at ANL for Calibration of CLFV Experiments**

*Wednesday, June 20, 2012 3:00 PM (30 minutes)*

**Presenter:** GAI, Wei (Argonne National Laboratory)

**Session Classification:** Muons

**Track Classification:** Muon experiments

Contribution ID: 154

Type: **not specified**

## Cooling Channel Optics

*Saturday, June 16, 2012 2:50 PM (30 minutes)*

**Presenter:** MALONEY, James (Northern Illinois University)

**Session Classification:** Muons

**Track Classification:** Muon experiments

Contribution ID: 155

Type: **not specified**

## **J-PARC Muon Program**

**Presenter:** Prof. LANCASTER, Mark (UCL)

**Track Classification:** Muon experiments

Contribution ID: **156**

Type: **not specified**

## **joint with Calorimetry**



Contribution ID: **157**

Type: **not specified**

## **nu-e scattering**

Contribution ID: **158**

Type: **not specified**

## MINERvA

Contribution ID: **159**

Type: **not specified**

## **Scintillator detectors**

**Presenter:** Dr YEH, Minfang (Brookhaven National Laboratory)

Contribution ID: **160**

Type: **not specified**

## **Warped Penguins and LFV**

*Wednesday, June 20, 2012 11:00 AM (30 minutes)*

**Presenter:** TSAI, Y. (Cornell University)

**Session Classification:** Muons

Contribution ID: **161**

Type: **not specified**

## **Low Mass, High Speed Silicon Tracking**

*Saturday, June 16, 2012 4:00 PM (30 minutes)*

**Presenter:** Dr LIPTON, Ronald (Fermilab)

**Session Classification:** Tracking

Contribution ID: **162**

Type: **not specified**

## **The NA-62 Gigatracker**

*Saturday, June 16, 2012 4:30 PM (30 minutes)*

**Presenter:** VELGHE, Bob

**Session Classification:** Tracking

Contribution ID: **163**

Type: **not specified**

## **R-Symmetric Supersymmetry and LFV**

*Wednesday, June 20, 2012 11:30 AM (30 minutes)*

**Presenter:** FOK., R. (York University)

**Session Classification:** Muons

Contribution ID: **164**

Type: **not specified**

## **Muonic Hydrogen and the Proton Charge Radius**

*Wednesday, June 20, 2012 2:00 PM (30 minutes)*

**Presenter:** HILL, R. (University of Chicago)

**Session Classification:** Muons



Contribution ID: **165**

Type: **not specified**

## **Rare Muon Processes and Radiative Neutrino Mass Generation**

*Wednesday, June 20, 2012 12:00 PM (30 minutes)*

**Presenter:** JULIO, J. (Oklahoma State University)

**Session Classification:** Muons

Contribution ID: **166**

Type: **not specified**

## **Neutron-antineutron oscillations**

*Friday, June 22, 2012 9:45 AM (45 minutes)*

**Co-authors:** Prof. YOUNG, Albert (North Carolina State University/Triangle Universities Nuclear Laboratory); Prof. QUIGG, Chris (Fermilab)

**Presenter:** Prof. SNOW, W. M. (Indiana University)

**Session Classification:** Summary Session

Contribution ID: **167**

Type: **not specified**

## **joint with Calorimetry**

Contribution ID: **168**

Type: **not specified**

## **ORKA drift chamber**

*Monday, June 18, 2012 9:00 AM (30 minutes)*

**Primary author:** Dr NUMAO, Toshio (TRIUMF)

**Presenter:** Dr NUMAO, Toshio (TRIUMF)

**Session Classification:** Tracking

Contribution ID: **169**

Type: **not specified**

## **Multi-Anode Straws**

*Monday, June 18, 2012 9:30 AM (30 minutes)*

**Presenter:** Prof. OH, Seog (Duke University)

**Session Classification:** Tracking

Contribution ID: 170

Type: **not specified**

## Discussion

Contribution ID: 171

Type: **not specified**

## Straw Tracking for G-2

*Saturday, June 16, 2012 12:00 PM (30 minutes)*

**Primary authors:** CASEY, Brendan (FNAL); Dr NGUYEN, Hogan (Fermilab)

**Session Classification:** Tracking

**Track Classification:** Tracking

Contribution ID: 172

Type: **not specified**

## Discussion

*Saturday, June 16, 2012 5:00 PM (30 minutes)*

**Session Classification:** Tracking



Contribution ID: 173

Type: **not specified**

## **Silicon tracker for mu -> e gamma**

*Monday, June 18, 2012 10:00 AM (30 minutes)*

**Presenter:** DEJONGH, Fritz (Fermilab)

**Session Classification:** Tracking

Contribution ID: 174

Type: **not specified**

## **Low Mass Tracker Mechanics**

*Monday, June 18, 2012 2:15 PM (30 minutes)*

**Presenter:** Dr COOPER, William (Fermilab)

**Session Classification:** Tracking

Contribution ID: 175

Type: **not specified**

## **Discussion of R&D Issues**

*Monday, June 18, 2012 3:15 PM (15 minutes)*

**Session Classification:** Tracking

Contribution ID: 176

Type: **not specified**

## **Low Mass Monolithic Active Pixel detector for STAR at RHIC**

*Monday, June 18, 2012 2:45 PM (30 minutes)*

**Presenter:** GRIENER, Leo

**Session Classification:** Tracking

Contribution ID: 177

Type: **not specified**

## Emulsion Detector

*Tuesday, June 19, 2012 2:00 PM (30 minutes)*

**Presenter:** PARA, Adam (Fermilab)

**Session Classification:** Neutrino physics and detectors

Contribution ID: 178

Type: **not specified**

## Coherent Scattering

*Wednesday, June 20, 2012 1:40 PM (30 minutes)*

**Presenter:** Mr SPITZ, Joshua (Yale University)

**Session Classification:** Neutrino physics and detectors

Contribution ID: 179

Type: **not specified**

## **Low energy neutrino source at Project-X stage-1**

*Tuesday, June 19, 2012 1:30 PM (30 minutes)*

**Presenter:** DEJONGH, Fritz (Fermilab)

**Session Classification:** Neutrino physics and detectors

Contribution ID: **180**

Type: **not specified**

## **Delta-S**

**Presenter:** Prof. TAYLOE, Rex (Indiana University)



Contribution ID: **181**

Type: **not specified**

## **Advanced Muon Beams at Project X**

*Monday, June 18, 2012 11:00 AM (30 minutes)*

**Presenter:** ANKENBRANDT, Charles (Muons, Inc.)

**Session Classification:** Muons

**Track Classification:** Muon experiments

Contribution ID: **182**

Type: **not specified**

## **Other Kaon Physics at ORKA**

*Tuesday, June 19, 2012 9:45 AM (45 minutes)*

**Primary author:** WORCESTER, Elizabeth (BNL)

**Presenter:** WORCESTER, Elizabeth (BNL)

**Session Classification:** Kaons

**Track Classification:** Kaon experiments

Contribution ID: **183**

Type: **not specified**

## Calorimetry summary

*Thursday, June 21, 2012 4:45 PM (45 minutes)*

**Primary author:** Prof. HITLIN, David (Caltech)

**Co-author:** Dr DIWAN, Milind (BNL)

**Presenter:** Prof. HITLIN, David (Caltech)

**Session Classification:** Summary Session

**Track Classification:** EM calorimetry

Contribution ID: **184**

Type: **not specified**

## **Time-of-flight summary**

*Friday, June 22, 2012 2:45 PM (45 minutes)*

**Presenter:** Dr ALBROW, Michael (Fermi National Accelerator Laboratory)

**Session Classification:** Summary Session

Contribution ID: **185**

Type: **not specified**

## **Muon physics summary**

*Friday, June 22, 2012 11:50 AM (45 minutes)*

**Presenter:** KRIBS, Graham (Fermilab/U Oregon)

**Session Classification:** Summary Session

Contribution ID: **186**

Type: **not specified**

## Tracking summary

*Friday, June 22, 2012 2:00 PM (45 minutes)*

**Presenter:** Dr LIPTON, Ronald (Fermilab)

**Session Classification:** Summary Session

Contribution ID: **187**

Type: **not specified**

## **MINERvA (remote talk)**

*Monday, June 18, 2012 11:00 AM (40 minutes)*

**Presenter:** RAY, Heather

**Session Classification:** Neutrino physics and detectors

Contribution ID: **188**

Type: **not specified**

## **ORKA Calorimeter - II**

*Monday, June 18, 2012 9:40 AM (25 minutes)*

**Presenter:** Dr MAZZACANE, Anna (Fermilab)

**Session Classification:** EM calorimetry

**Track Classification:** EM calorimetry



Contribution ID: **189**

Type: **not specified**

## **Scintillation Detectors**

*Saturday, June 16, 2012 2:45 PM (30 minutes)*

**Presenter:** Dr YEH, Minfang (Brookhaven National Laboratory)

**Session Classification:** Neutrino physics and detectors

Contribution ID: **190**

Type: **not specified**

## **nu-e scattering**

*Saturday, June 16, 2012 3:15 PM (30 minutes)*

**Presenter:** Mr PARK, Jaewon (University of Rochester)

**Session Classification:** Neutrino physics and detectors

Contribution ID: **192**

Type: **not specified**

## **Calorimetry requirements for an nnbar experiment**

*Monday, June 18, 2012 3:15 PM (10 minutes)*

**Presenter:** Prof. KAMYSHKOV, Yuri (University of Tennessee)

**Session Classification:** EM calorimetry

**Track Classification:** EM calorimetry

Contribution ID: **193**

Type: **not specified**

## **MEG Calorimeter experience and upgrade**

*Saturday, June 16, 2012 11:10 AM (20 minutes)*

**Presenter:** Prof. MOLZON, William (University of California, Irvine)

**Session Classification:** EM calorimetry

**Track Classification:** EM calorimetry

Contribution ID: **194**

Type: **not specified**

## **Introduction**

*Saturday, June 16, 2012 4:00 PM (15 minutes)*

**Presenter:** Dr ALBROW, Michael (Fermilab)

**Session Classification:** Time of flight

Contribution ID: **195**

Type: **not specified**

## Introduction

**Presenter:** Dr ALBROW, Michael (Fermi National Accelerator Laboratory)

Contribution ID: **196**

Type: **not specified**

## **Timing needs mu-egamma, mu-eee**

*Saturday, June 16, 2012 4:15 PM (20 minutes)*

**Presenter:** Dr DEJONGH, Fritz (Fermilab)

**Session Classification:** Time of flight

Contribution ID: **197**

Type: **not specified**

## **Timing detectors ATLAS forward protons**

*Saturday, June 16, 2012 4:35 PM (20 minutes)*

**Presenter:** Prof. BRANDT, Andrew

**Session Classification:** Time of flight



Contribution ID: **198**

Type: **not specified**

## **QUARTIC for CMS protons**

*Saturday, June 16, 2012 4:55 PM (20 minutes)*

**Presenter:** Dr ALBROW, Michael (Fermi National Accelerator Laboratory)

**Session Classification:** Time of flight

Contribution ID: **199**

Type: **not specified**

## **MCP with ALD timing properties**

*Monday, June 18, 2012 9:00 AM (20 minutes)*

**Presenter:** Dr ELAGIN, Andrey

**Session Classification:** Time of flight

Contribution ID: **200**

Type: **not specified**

## **Fermilab test beam and timing detector development**

*Monday, June 18, 2012 9:20 AM (20 minutes)*

**Presenter:** RAMBERG, Erik

**Session Classification:** Time of flight

Contribution ID: **201**

Type: **not specified**

## **Ultrafast lasers**

*Monday, June 18, 2012 9:40 AM (20 minutes)*

**Presenter:** Dr SCARPINE, Vic

**Session Classification:** Time of flight

Contribution ID: **202**

Type: **not specified**

## **k0pi0 timing**

*Monday, June 18, 2012 2:00 PM (20 minutes)*

**Presenter:** LITTENBERG, Laurie

**Session Classification:** Time of flight

Contribution ID: **203**

Type: **not specified**

## **timing in n-nbar**

*Monday, June 18, 2012 2:20 PM (20 minutes)*

**Presenter:** Prof. KAMYSHKOV, Yuri

**Session Classification:** Time of flight

Contribution ID: **204**

Type: **not specified**

## **Generator for nbar-Carbon annihilation**

**Presenter:** GANEZER, Ken (CSUDH)

Contribution ID: 205

Type: **not specified**

## **Overview of free neutron-antineutron search experiment at ILL in 1991**

*Monday, June 18, 2012 11:00 AM (40 minutes)*

**Primary author:** Prof. DUBBERS, Dirk (University of Heidelberg)

**Presenter:** Prof. DUBBERS, Dirk (University of Heidelberg)

**Session Classification:** Neutron-antineutron oscillations

**Track Classification:** Neutron-antineutron oscillations



Contribution ID: 206

Type: **not specified**

## **Overview of possible NNbarX configurations and staging**

*Monday, June 18, 2012 11:40 AM (30 minutes)*

**Primary author:** Prof. KAMYSHKOV, Yuri (University of Tennessee)

**Presenter:** Prof. KAMYSHKOV, Yuri (University of Tennessee)

**Session Classification:** Neutron-antineutron oscillations

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: **207**

Type: **not specified**

## Discussion

*Monday, June 18, 2012 12:10 PM (20 minutes)*

**Session Classification:** Neutron-antineutron oscillations

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: **208**

Type: **not specified**

## **Light Collection for LAr**

*Monday, June 18, 2012 2:00 PM (20 minutes)*

**Primary author:** MUFSON, Stuart (Indiana U)

**Presenter:** MUFSON, Stuart (Indiana U)

**Session Classification:** Large-area, cost-effective detectors

**Track Classification:** Large-area, cost-effective detectors

Contribution ID: **209**

Type: **not specified**

## **NNbarX magnetic shielding**

*Monday, June 18, 2012 3:05 PM (15 minutes)*

**Presenter:** SNOW, William Michael (Indiana U.)

**Session Classification:** Large-area, cost-effective detectors

**Track Classification:** Neutron-antineutron oscillations

Contribution ID: **210**

Type: **not specified**

## **N-NBar Tracker**

*Monday, June 18, 2012 2:00 PM (15 minutes)*

**Presenter:** Prof. SNOW, W. M. (Indiana University)

**Session Classification:** Tracking

Contribution ID: **211**

Type: **not specified**

## **Laser timing**

*Monday, June 18, 2012 2:40 PM (20 minutes)*

**Presenter:** SCARPINE, Vic (Fermilab)

**Session Classification:** Time of flight

Contribution ID: 212

Type: **not specified**

## **J-PARC Muon Program**

*Wednesday, June 20, 2012 2:30 PM (30 minutes)*

**Primary author:** Prof. LANCASTER, Mark (University College London)

**Presenter:** Prof. LANCASTER, Mark (UCL)

**Session Classification:** Muons

Contribution ID: 213

Type: **not specified**

## The TREK Experiment at JPARC

*Wednesday, June 20, 2012 11:00 AM (45 minutes)*

**Primary author:** Prof. HASINOFF, Michael (University of British Columbia)

**Presenter:** Prof. HASINOFF, Michael (University of British Columbia)

**Session Classification:** Kaons



Contribution ID: 214

Type: **not specified**

## **Discussion of Kaon experiments in the Project X era**

*Wednesday, June 20, 2012 11:45 AM (45 minutes)*

**Session Classification:** Kaons

Contribution ID: **215**

Type: **not specified**

## **Gigatracker**

*Tuesday, June 19, 2012 2:00 PM (30 minutes)*

**Presenter:** VELGHE, Bob (Université catholique de Louvain - CP3)

**Session Classification:** Time of flight

Contribution ID: **216**

Type: **not specified**

## Discussion

*Tuesday, June 19, 2012 2:30 PM (1 hour)*

**Primary author:** Dr VAN DE WATER, Ruth (Brookhaven National Laboratory)

**Session Classification:** Lattice QCD

Contribution ID: 217

Type: **not specified**

## **Phone conference with DOE OHEP regarding funding opportunities**

*Wednesday, June 20, 2012 12:30 PM (30 minutes)*

**Session Classification:** Conference Call with DOE - Funding Opportunities

Contribution ID: **218**

Type: **not specified**

## **Fast directional EM cal**

*Tuesday, June 19, 2012 2:30 PM (20 minutes)*

**Presenter:** Dr ALBROW, Michael (Fermi National Accelerator Laboratory)

**Session Classification:** Time of flight

Contribution ID: 219

Type: **not specified**

## **Large-Area and Cost-Effective Detectors for Neutrinos and Proton Decay**

*Friday, June 22, 2012 11:25 AM (25 minutes)*

**Presenter:** SANCHEZ, Mayly (Iowa State University)

**Session Classification:** Summary Session