

#### New Perspectives 2014

#### **Final Recap** Louise Suter, for FSPA

Fermilab Student and Postdoc Association

#### New Perspectives 2014

June 9-10, 2014 Fermilab

Talks by students and postdocs, June 9-10 Kuhn Barn BBQ, June 10 Poster session, June 11

Information and registration
www.fnal.gov/orgs/gsa/new\_perspectives/



Fermilab

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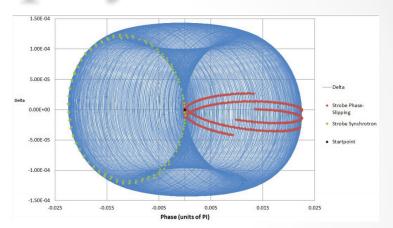
# Great coverage of work at the lab

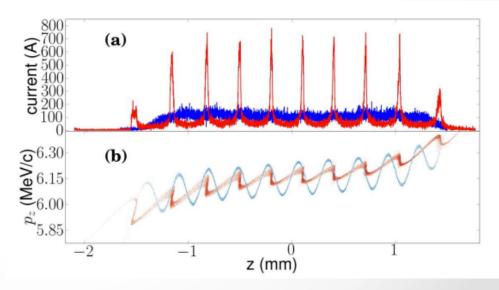
- 17 talks over two days covering all areas of work at the lab
- Accelerator physics
  - Slip stacking and wakefeilds
- Muon physics
  - o g-2
  - o Mu2e
- Collider physics
  - 3 CMS physics covering BSM, electroweak, b-physics
  - 3 CMS detector talks covering pixel upgrade and GFLash
- Neutrino physics
  - o 2NOvA
  - o 1 MINOS
  - o 1 LArIAT
  - o 1 Phenomenology talk



### Accelerator physics

- Slip stacking
  - Great explanation on how this upgrade to Fermilab's technology works
- Wakefeilds
  - Hear recent advancements
     in this technology
  - Could be used in future
     electron colliders

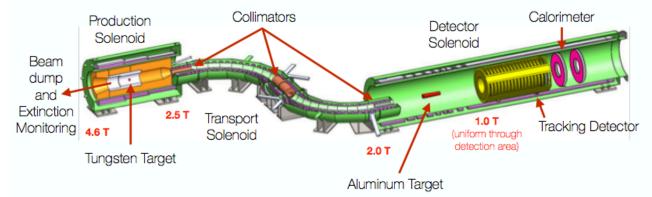






### Muon physics

Overview of Mu2e experiment



Overview of g-2 experiment

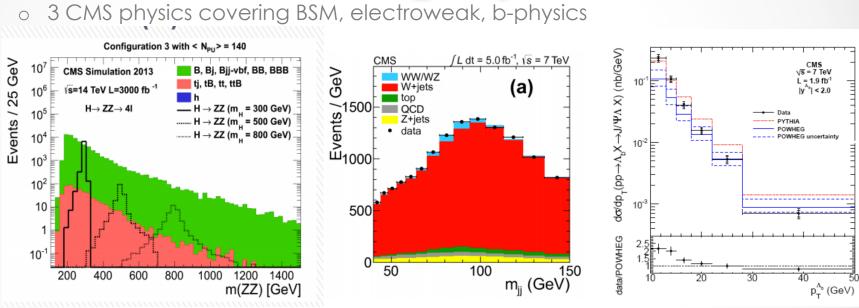




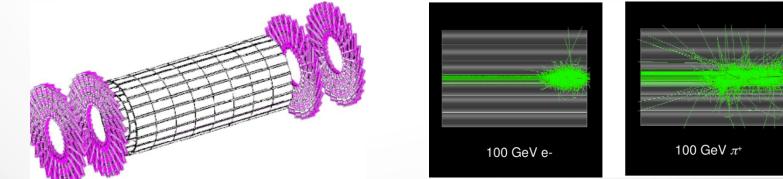
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**Collider** physics



3 CMS detector talks covering the pixel upgrade, Gflash HF simulation and 0 **FPIX** detector





0

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NOVA

 $|\Delta m_{32}^2| = 2.32 \ 10^{-3} \ eV^2$ 

 $\sin^{2}(2\theta_{13}) = 0.095$ sin<sup>2</sup>(20,3) = 0.97

0.08

0.07 0.06

0.05 0.04

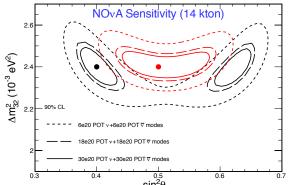
0.03

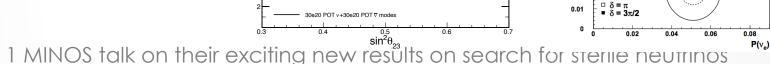
0.02

 $\circ \delta = 0$ δ = π/2

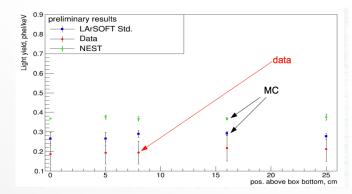
## Neutrino physics

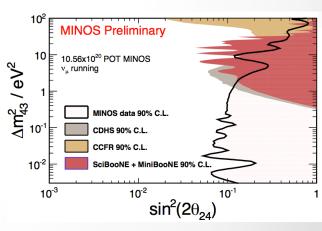
2 NOvA talks on both the electron neutrino appearance and muon  $\bigcirc$ neutrino disappearance channels  $P(\overline{v}_{e})$ Contours 3 yr v and 3 yr v





1 LArIAT talk on testing their light readout system Ο

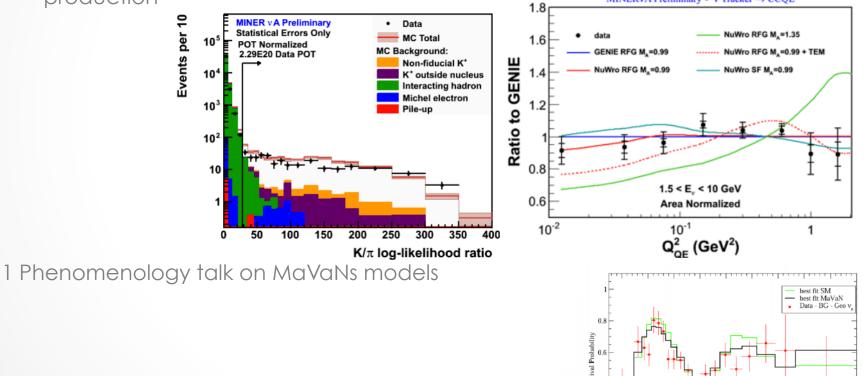






# Neutrino physics

- o 3 Minerva
  - Overview talk and about QE neutrino scattering and charged Kaon production
     MINERVA Preliminary • v Tracker → CCQE



5 0.4

0.2

30

40

50

60 70

L/E (km/MeV)

100

110

90

0



#### **Elevator Pitch Session**

- Had a successful elevator pitch session
- Information on where these will be available will be posted soon



**FSPA** 

- FSPA thanks your for your time and attention
- Would not be possible with out you!
- FSPA elections take place in October
  - Keep in mind if you think this looked like fun are interested in giving something to the Fermilab community



## Thank you all!

- Join us this evening for a BBQ at Kuhn Barn in the Fermilab Village
- Food and beverages will be available and free
- Starting at 6pm!

