

Welcome to New Perspectives 2019!

The conference at a glance

- 157 registered attendees
- 53 abstracts accepted
- 13 hours and 45 minutes of physics in two days!

Monday morning

09:00	Welcome One West, Fermi National Accelerator Laboratory 09:00 - 09:10
	DES in 10 Minutes One West, Fermi National Accelerator Laboratory 09:10 - 09:25
	Searching for the lowest luminosity companions of the Milky Way One West, Fermi National Accelerator Laboratory 09:25 - 09:40
	Strong Lensing Science from Current and Future Astronomical Surveys One West, Fermi National Accelerator Laboratory 09:40 - 09:55
10:00	Development of a new imager testing projector using a micromirror array One West, Fermi National Accelerator Laboratory 09:55 - 10:10
	Machine learning dark matter halo formation One West, Fermi National Accelerator Laboratory 10:10 - 10:25
	Improving the spatial resolution of the ATLAS IBL silicon pixel detectors One West, Fermi National Accelerator Laboratory 10:25 - 10:40
	Coffee break One West, Fermi National Accelerator Laboratory 10:40 - 11:00
11:00	Plasma processing for LCLS-II 1.3GHz SRF cavities One West, Fermi National Accelerator Laboratory 11:00 - 11:15
	Simulation of Resonant Extraction at Fermilab's Delivery Ring One West, Fermi National Accelerator Laboratory 11:15 - 11:30
	Design and analysis of a halo-measurement diagnostics One West, Fermi National Accelerator Laboratory 11:30 - 11:45
	High Luminosity Spin-Polarized Target for the SpinQuest Experiment One West, Fermi National Accelerator Laboratory 11:45 - 12:00
12:00	E1029/SpinQuest Polarized Drell-Yan Experiment at Fermilab One West, Fermi National Accelerator Laboratory 12:00 - 12:15
	Lunch - careers panel discussion One West, Fermi National Accelerator Laboratory 12:15 - 12:45

Monday afternoon

	MicroBoNE in 10 Minutes One West, Fermi National Accelerator Laboratory 14:00 - 14:15
	Progress towards the extraction of exclusive $v p \rightarrow 40$ Ar cross sections with a single proton using the MicroBoNE LArTPC det... One West, Fermi National Accelerator Laboratory 14:15 - 14:30
	Towards the measurement of the charged-current electron-neutrino inclusive cross-section on argon in MicroBoNE using the NuMI beam. One West, Fermi National Accelerator Laboratory 14:30 - 14:45
15:00	Chimera Events in the MicroBoNE Experiment One West, Fermi National Accelerator Laboratory 14:45 - 15:00
	SBND in 10 minutes One West, Fermi National Accelerator Laboratory 15:00 - 15:15
	Overview of the Cold Electronics of SBND One West, Fermi National Accelerator Laboratory 15:15 - 15:30
	A Preliminary $\delta_{\text{true}}(\text{Lmu})$ CC 0° νIS Event Selection in SBND One West, Fermi National Accelerator Laboratory 15:30 - 15:45
	Coffee break: Coffee break One West, Fermi National Accelerator Laboratory 15:45 - 16:15
16:00	Cosmogenic Background Suppression at the SBN Far Detector (ICARUS) with the Cosmic Ray Tagging System One West, Fermi National Accelerator Laboratory 16:15 - 16:30
	LArIAT in 10 minutes One West, Fermi National Accelerator Laboratory 16:30 - 16:45
	Elastic neutrino-electron scattering within the effective field theory approach One West, Fermi National Accelerator Laboratory 16:45 - 17:00
17:00	MINERvA in 10 minutes One West, Fermi National Accelerator Laboratory 17:00 - 17:15
	ANNIE in 10 minutes: multiplicities, cross sections, and models (oh my!) One West, Fermi National Accelerator Laboratory 17:15 - 17:30
	ANNIE: Phase II Detector Design and Construction One West, Fermi National Accelerator Laboratory 17:30 - 17:45
	SuperCDMS in 10 Minutes One West, Fermi National Accelerator Laboratory 17:45 - 18:00
18:00	FeRMILab Search for Minicharged Particles One West, Fermi National Accelerator Laboratory 18:00 - 18:15

Barbeque

19:00

Tuesday morning

09:00	CHS in 10 minutes One West, Fermi National Accelerator Laboratory 09:00 - 09:15
	Perturbative QCD in 10 Minutes One West, Fermi National Accelerator Laboratory 09:15 - 09:30
	Lattice QCD in 10 Minutes One West, Fermi National Accelerator Laboratory 09:30 - 09:45
	Scintillator Tiles for the High Granularity Calorimeter of the CMS Detector at the HL-LHC One West, Fermi National Accelerator Laboratory 09:45 - 10:00
10:00	Layout and performance of GE1/1 chambers for the CMS muon spectrometer upgrade One West, Fermi National Accelerator Laboratory 10:00 - 10:15
	Reconstructing proton-proton collision positions at the Large Hadron Collider with a D-Wave quantum computer One West, Fermi National Accelerator Laboratory 10:15 - 10:30
	Coffee break: Coffee break One West, Fermi National Accelerator Laboratory 10:30 - 11:00
11:00	Searching for Dark Matter with Semi-Visible Jets at CMS One West, Fermi National Accelerator Laboratory 11:00 - 11:15
	Search for Supersymmetry at CMS in Events with Large Jet Multiplicity and Low Missing Transverse Momentum at $\sqrt{s}=13$ TeV One West, Fermi National Accelerator Laboratory 11:15 - 11:30
	Search for dark photons with CMS and fixed-target experiments One West, Fermi National Accelerator Laboratory 11:30 - 11:45
	DUNE in 10 Minutes One West, Fermi National Accelerator Laboratory 11:45 - 12:00
12:00	Cold Electronics Readout System for the ProtoDUNE-SP LAr-TPC One West, Fermi National Accelerator Laboratory 12:00 - 12:15
	Signal processing in the protoDUNE-SP LArTPC One West, Fermi National Accelerator Laboratory 12:15 - 12:30
	Michel electron reconstruction in ProtoDUNE One West, Fermi National Accelerator Laboratory 12:30 - 12:45
	Overcoming Neutrino Interaction Mis-modeling with DUNE-PRISM One West, Fermi National Accelerator Laboratory 12:45 - 13:00
13:00	Lunch - careers panel discussion: Lunch One West, Fermi National Accelerator Laboratory 13:00 - 14:00

Tuesday afternoon

14:00	PSPA report One West, Fermi National Accelerator Laboratory 14:00 - 14:10
	UEC report One West, Fermi National Accelerator Laboratory 14:10 - 14:20
	NOvA in 10 minutes One West, Fermi National Accelerator Laboratory 14:20 - 14:35
	NuMI Beam Muon Monitor Simulation for Neutrino Beam Quality Improvement One West, Fermi National Accelerator Laboratory 14:35 - 14:50
15:00	Neutrino Event Classification with Deep Learning in NOvA One West, Fermi National Accelerator Laboratory 14:50 - 15:05
	NOvA's far detector predictions and understanding key systematic uncertainties One West, Fermi National Accelerator Laboratory 15:05 - 15:20
	NOvA's approaches on estimation of wrong sign contamination One West, Fermi National Accelerator Laboratory 15:20 - 15:35
	Cross section model tuning and multiplicity studies in NOvA One West, Fermi National Accelerator Laboratory 15:35 - 15:50
16:00	The NOvA Test Beam Program One West, Fermi National Accelerator Laboratory 15:50 - 16:05
	Coffee break: Coffee break One West, Fermi National Accelerator Laboratory 16:05 - 16:30
	BSN theory in 10 minutes One West, Fermi National Accelerator Laboratory 16:30 - 16:45
	Muon p-2 in 10 minutes One West, Fermi National Accelerator Laboratory 16:45 - 17:00
17:00	Pileup Systematic Studies in the Fermilab Muon p-2 Experiment One West, Fermi National Accelerator Laboratory 17:00 - 17:15
	Mu2e in 10 minutes One West, Fermi National Accelerator Laboratory 17:15 - 17:30
	Design and status of the Mu2e crystal calorimeter One West, Fermi National Accelerator Laboratory 17:30 - 17:45








Note to Speakers

- Make sure your talk is uploaded before your session begins.
 - Ideally, before the break before your session
- Please stick to time!
 - We have a packed agenda, and can't afford many delays
 - If you over-run, we will have to cut you off!
- Enjoy yourselves!

Fermilab Code of Conduct

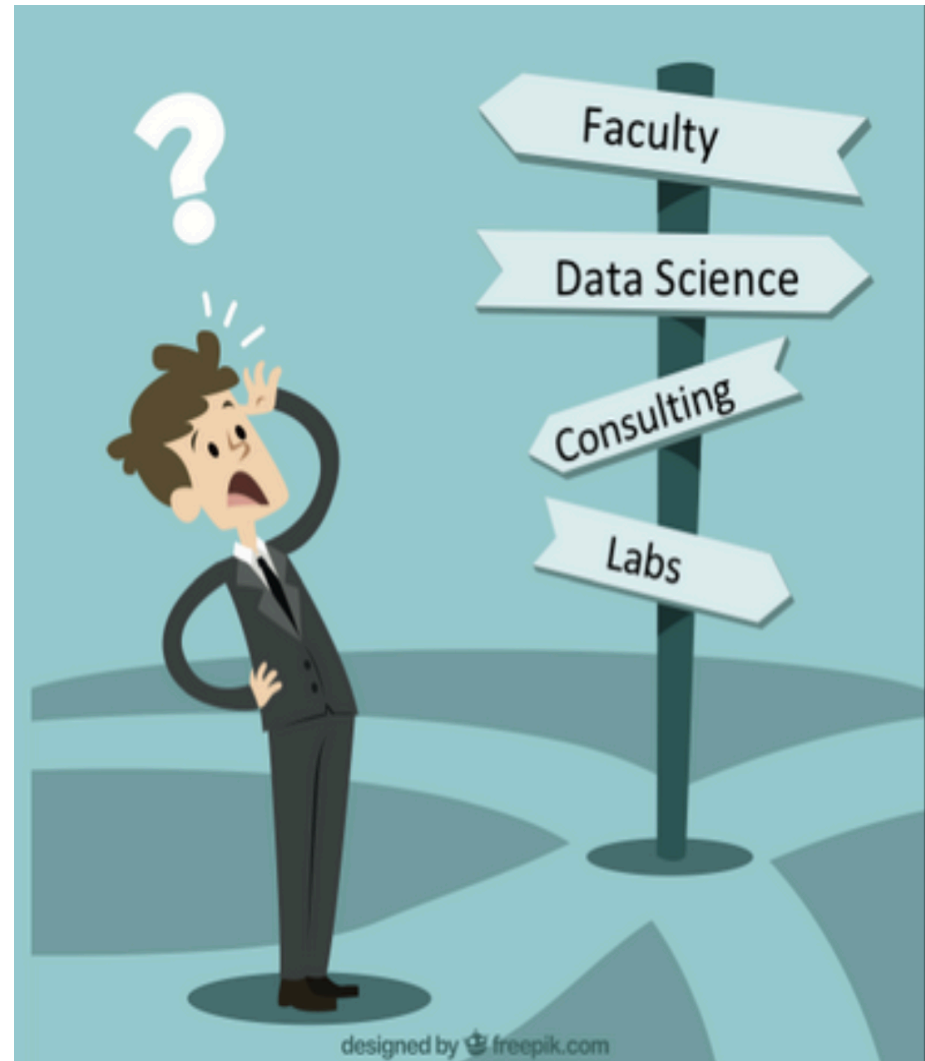
- We expect all New Perspectives participants to abide by the Fermilab statement of community standards
- Please be respectful of everyone, including speakers, chairs, and other audience members
- Please hold questions until after the speaker has finished – there will be time for questions after every talk

We are one Fermilab

-  Everyone is worthy of respect
-  Encourage discussion
-  Genuinely listen
-  Collaborate
-  Respect the messenger
-  Have courage
-  Own your voice
-  Be kind
-  Fresh perspectives lead to innovation
-  Encourage others to speak
-  Own it, mistakes happen
-  Share the air


Careers panel

- At lunchtime today we will hold a careers panel
 - **Lunch served at 12:15**
 - Panel discussion from 12:30-13:30
 - Afternoon talks resume 13:45
- We have 6 panelists from universities, national labs, and industry
 - Come and ask any questions you have about pursuing careers in these roles!



Barbecue!

- Tonight from 6:30pm
 - Last talk ends at 6:15
- At Kuhn Barn (in the village)



NB vegetarian food also available!



Beyond New Perspectives

- Tuesday evening – Festa Italiana!
 - At Kuhn Barn
- Wednesday and Thursday – Users Meeting
 - <https://indico.fnal.gov/event/20244/overview>
 - Poster session Wednesday night
 - Interesting parallel panel discussions

A few thank yous

- Fermilab conference office
- Our career panellists
- Session Chairs
- Previous FSPA officers for invaluable advice!
- Everyone giving a talk and making this conference such an exciting venue!

Without further ado