

# Precision Time-Structure in On-Axis Neutrino Beams

Saturday Nov. 2 and Sunday morning, Nov. 3, 2019  
Fermilab Wilson Hall

## Pre-Workshop Friday Wine and Cheese

### Friday, Nov. 1, 2019: Fermilab Wilson Hall: Curia II

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4:00-5:00

#### Joint Experimental-Theoretical Physics Seminar

*Precision Time-Structure in On-Axis Neutrino Beams*

Matthew Wetstein

6:00

Conviviality

User Center

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See next 2 pages for the Saturday and Sunday Workshop agenda

# **WORKSHOP AGENDA (In progress)**

## **Saturday, Nov. 2, 2019: Fermilab Wilson Hall, Curia II**

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8:00-8:30	Coffee:	
8:30 - 8:40	Welcome and Logistics (lunch orders,dinner plans)	S. Nagaitsev and M. Wetstein
8:40-12:00	<b>Session 1: Physics with Precision Time Structure</b>	<b>Chairs: L. Fields and H. Frisch</b>
8:40-9:05	Expected World Precision on PMNS Physics Parameters 2019-2039	A. de Gouvea
9:10-9:35	Systematic Uncertainties in DUNE	C. Marshall
9:40-10:05	Addressing Systematic Uncertainties with DUNE-PRISM	M. Wilking
10:10-10:25	Coffee:	1 West
10:25-10:55	First Look at Long-baseline Analysis With Time-Selected Spectra	E. Worcester
11:00-11:30	Impact of Stroboscopic Muon Flux TOF Measurements on DUNE	Z. Pavlovic
11:35-12:05	New Physics Opportunities	P. Machado
12:10- 1:15	Lunch	Pre-ordered sandwiches
1:15-3:20	<b>Session 2: Main Injector Beam Dynamics</b>	<b>Chairs: V. Lebedev and A. Valishev</b>
1:15-1:45	Main Injector Rebunching Scenarios	P. Derwent
1:50-2:15	Considerations on a 530-MHz SRF Cavity	S. Belomestnykh
2:20-2:45	Beam Dynamics During Rebunching	A. Burov
2:50-3:15	Target and Horn Optimization	R. Zwaska
3:20-3:45	Coffee:	1 West
3:45-5:40	<b>Session 3: Implementing Fast Timing in Neutrino Detectors</b>	<b>Chairs: E. Angelico and P. Merkel</b>
3:45-4:10	Timing in Liquid Argon with Cherenkov Light	R. Svoboda
4:15-4:40	Mirrors in LAr detectors	M. Wetstein
4:45-5:10	Timing in the DUNE Near Detector	T. Junk
5:15-5:40	Timing in Large Liquid Cherenkov/Scintillator Detectors	A. Elagin
6:30	Dinner	Local Restaurant

## Sunday, Nov. 3, 2019: Fermilab Wilson Hall, Curia II

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8:30-9:00	Coffee	
9:00-12:15	<b>Session 4: Summary and Planning</b>	<b>Chairs: M. Spiropulu and J. Lykken</b>
9:00-9:30	Post-Workshop Overview of Oscillation Systematics and Challenges	M. Sanchez
9:35-10:05	Thoughts on Accelerator Modifications	M. Convery (TBC)
10:10-10:30	Coffee:	1 West
10:30-11:00	Discussion of Near and Far Detector Timing System Issues	All
11:05-12:15	What If Anything Should Be Done and By Whom; Next Meeting?	Discussion led by Chairs

**End of Workshop: Thanking Staff, and Goodbyes**