



# The Second Wire-Cell Reconstruction Summit

## Wednesday, 10 April 2024

### **Plenary: General Introduction - Large Seminar Room, Bldg. 510 Physics Department (09:00 - 12:00)**

-Conveners: Michael Kirby

time	[id] title	presenter
09:00	[1] Introduction of BNL NPP	GAO, Haiyan GAO, Haiyan
09:20	[2] Workshop Logistic and Goals	QIAN, Xin
09:40	[5] History of LArTPC Development	RADEKA, Veljko Radeka
10:25	Coffee break	
10:45	[4] Wire-Cell Overview (Part I)	ZHANG, Chao
11:15	[3] Wire-Cell Overview (Part II)	VIREN, Brett

### **Plenary: Prompt Processing - Large Seminar Room, Bldg. 510 Physics Department (13:30 - 17:20)**

-Conveners: Haiwang Yu

time	[id] title	presenter
13:30	[44] Prompt processing overview	KIRBY, Michael KIRBY, Michael
14:00	[45] Prompt signal processing infrastructure development	GERLACH, Lino
14:30	[46] Wire-Cell Signal Processing	GU, Wenqiang GU, Wenqiang
15:00	Coffee break	
15:20	[47] SBND signal processing and DNN ROI	BHAT, Avinay JUNG, Moon JUNG, Mun Jung
15:50	[48] PDHD Offline Data Processing	CHOWDHURY, Barnali CHOWDHURY, Barnali
16:20	[49] Prompt @SURF supernova pointing for DUNE	WANG, Michael H L WANG, Michael
16:50	[50] Developing the Off-line Data Quality Monitoring framework for DUNE	STENICO, Gabriela VITTI STENICO, Gabriela

# Thursday, 11 April 2024

## **Plenary: Data Interface - Large Seminar Room, Bldg. 510 Physics Department (09:00 - 12:00)**

-Conveners: Wenqiang Gu

time	[id] title	presenter
09:00	[28] WireCell IO overview	VIREN, Brett
09:30	[29] Framework/Wire-Cell Interface aspects	KNOEPFEL, Kyle
10:00	[30] Developing Fine Grained I/O and Storage Infrastructure	CHOWDHURY, Barnali CHOWDHURY, Barnali
10:30	Coffee break	
11:00	[31] LARDON overview + application on PD-VD	ZAMBELLI, Laura Amelie ZAMBELLI, Laura
11:30	[32] 2x2 Software Interface	DIURBA, Richard DIURBA, Richie

## **Plenary: Experimental Need - Large Seminar Room, Bldg. 510 Physics Department (13:30 - 17:50)**

-Conveners: Chao Zhang

time	[id] title	presenter
13:30	[23] Wire-Cell in MicroBooNE	WEI, Hanyu
13:45	[24] Wire-Cell in SBND	BELCHIOR BATISTA DAS CHAGAS, Ewerton TUNG, Lynn
14:10	[26] SBN software overview	CERATI, Giuseppe
14:35	[25] SBN calibration and Wire-Cell	MOONEY, Michael MOONEY, Michael
15:00	Coffee Break	
15:30	[35] Wire-Cell in ProtoDUNE	JO, Jay Hyun
15:50	[36] ND-LAr Overview	RUSSELL, Brooke RUSSELL, Brooke
16:10	[39] Wire-Cell for DUNE-FD	YU, Haiwang
16:30	[40] Discussion	

# Friday, 12 April 2024

## Plenary: Pattern recognition, AI/ML - Large Seminar Room, Bldg. 510 Physics Department (09:00 - 12:30)

-Conveners: Hanyu Wei

time	[id] title	presenter
09:00	[8] Wire-Cell Pattern Recognition and AI/ML	YU, Haiwang
09:30	[11] Pandora Pattern Recognition Overview	MAWBY, Isobel
09:55	[18] Pandora AI/ML	CHAPPELL, Andrew CHAPPELL, Andy
10:20	Coffee break	
11:00	[10] ICARUS AI/ML	TERAO, Kazuhiro
11:40	[9] Deep-learning in NOvA	WU, Wenjie
12:00	Group photo	

## Plenary: Pattern recognition, AI/ML - Large Seminar Room, Bldg. 510 Physics Department (13:25 - 17:30)

-Conveners: Jay Hyun Jo

time	[id] title	presenter
13:30	[17] MicroBooNE DL	WONGJIRAD, Taritree ROSENBERG, Matthew
14:10	[42] ND-LAr/2x2 ML-reco	MICALLEF, Jessie MICALLEF, Jessie
14:30	[12] DL event reconstruction in DUNE Far Detector	LIU, Junze LIU, Junze
14:50	[22] Transformer at DUNE	YANKELEVICH, Alejandro YANKELEVICH, Alejandro SHMAKOV, Alex
15:10	Coffee break	
15:30	[13] Differentiable TPC simulation	CHEN, Yifan
15:50	[14] Differentiable optical simulation	TSANG, Patrick
16:10	[43] Opportunities of Pandora and Wire-Cell	BRUNETTI, Maria Brigida
16:30	[15] LS4GAN	TORBUNOV, Dmitrii
16:50	[20] Close out	YU, Haiwang QIAN, Xin