

Seattle Snowmass Summer Meeting 2022

Monday, 18 July 2022

Instrumentation Frontier: IF1 - 288 (08:00 - 12:00)

-Conveners: Tom Cecil; Reina Maruyama

time	[id] title	presenter
08:00	[441] Introduction	
08:15	[442] Review of coordinated white papers	
09:00	[443] Community White Paper Input	
09:30	Break	
09:45	[444] Review of Topical Group Report	
10:00	[445] Topical Group Report Hack session	

Instrumentation Frontier: IF2 - 284 (08:00 - 12:00)

-Conveners: Carlos Escobar; Juan Estrada Vigil; Guillermo Fernandez Moroni

time	[id] title	presenter
08:00	[660] TES	CHANG, Clarence
08:20	[661] MKIDs	MAZIN, Benjamin
08:40	[662] SNSPDs	BERGGREN, Karl
09:00	[663] 3D digital silicon photomultipliers	CHARLEBOIS, Serge
09:20	[664] Skipper-CCDs	CERVANTES VERGARA, Brenda Aurea CERVANTES VERGARA, Brenda
09:40	Coffee break	
10:00	[665] Quantum imaging applications	MAGNONI, Agustina Gabriela
10:20	[666] Ge Detectors	LEITZ, Christopher
10:40	[667] Multiplexing electronics	CANCELO, Gustavo
11:00	[668] SNSPD cold readout: activities and plans	BRAGA, Davide
11:20	[669] Future photon-based neutrino detectors	KLEIN, Joshua
11:40	[670] Report Discussion	

Tuesday, 19 July 2022

Instrumentation Frontier: IF6 - 248 (08:00 - 12:00)

-Conveners: **Andy White; Minfang Yeh; Rachel Yohay**

time	[id] title	presenter
08:00	[317] Recap of the process (Calorimetry talks, LOIs, White Papers, Summary)	WHITE, Andy YEH, Minfang YOHAY, Rachel
08:20	[318] Precise timing	SIMON, Frank
09:10	[319] Particle Flow	BRAU, James Dr KRUGER, Katja
09:55	[748] Break	
10:05	[320] Dual-Readout	ENO, Sarah
10:50	[321] Materials for Calorimetry	ZHU, Renyuan
11:40	[322] General discussion	WHITE, Andy YEH, Minfang YOHAY, Rachel

Instrumentation Frontier: IF4 - 284 (08:00 - 12:00)

-Conveners: **Wesley Ketchum; Allison Deiana; Darin Acosta**

time	[id] title	presenter
08:00	[504] Introduction	DEIANA, Allison ACOSTA, Darin KETCHUM, Wesley
08:10	[505] Readout Technologies	PARAMONOV, Alexander
08:40	[506] Innovations in TDAQ	BERNIUS, Catrin MILLER, David BARTOLDUS, Rainer
09:10	Break	
09:25	[507] Perspective and outlook for hardware-based track triggers	HAHN, Kristian
09:45	[508] A fast method for particle tracking	KOTWAL, Ashutosh
10:00	[509] Track-Based Triggers for Exotic Signatures	HOLMES, Tova
10:15	[510] Discussion	
10:30	[511] Fast ML	TRAN, Nhan
11:00	[512] Fast ML and Anomaly Driven Trigger Discussion	
11:30	[513] Guided discussion on TDAQ needs	

Instrumentation Frontier: IF10 - 242 (08:00 - 12:00)

-Conveners: **Amy Connolly; Albrecht Karle**

time	[id] title	presenter
08:00	[680] Introduction	Prof. KARLE, Albrecht

08:15	[446] Radio detection of neutrinos using ice as target, and detectors in ice	Dr CLARK, Brian
08:35	[447] Radio instrumentation for neutrino detectors using ice	Dr DEACONU, Cosmin
09:00	[448] Radar detection of neutrinos in the ice	Prof. PROHIRA, Steven
09:20	[449] Air shower detection of earth-skimming neutrinos	Prof. OTTE, Nepomuk
09:40	Coffee break	
10:00	[450] KID detectors	
10:20	[451] Radio air shower detection	Prof. DE JONG, Sijbrand
10:45	[452] IceCube Upgrade	Dr DUVERNOIS, Mike
11:10	[453] IceCube-Gen2 Optical, technical with km3net and P1 in context	Prof. ROTT, Carsten
11:40	[454] Panel, round table	Prof. KARLE, Albrecht

Instrumentation Frontier: IF3 - 288 (08:00 - 12:00)

-Conveners: Artur Apresyan; Tony Affolder; Steven Worm

time	[id] title	presenter
08:00	[458] Introduction	APRESYAN, Artur WORM, Steven AFFOLDER, Tony
08:15	[479] 4D-tracking detectors	SCHWARTZMAN, Ariel
08:35	[480] 3D integration	MAZZA, Simone
08:55	[481] Novel sensors	FOURCHES, Nicolas
09:15	[482] Monolithic Active Pixel Sensors	VERNIERI, Caterina
09:40	[483] Simulation	NACHMAN, Benjamin
10:05	[484] Mechanics	JUNG, Andreas
10:25	Coffee Break	
11:00	[485] Discussion and IF03 recommendations	

Wednesday, 20 July 2022

Instrumentation Frontier: Discussing the Report with the Community - 175 (08:00 - 12:00)

-Conveners: Petra Merkel; Phillip Barbeau; Jinlong Zhang

time	[id] title	presenter
08:00	[291] IF Introduction	BARBEAU, Phillip
08:05	[292] Key points from IF01 - Quantum Sensors	IRWIN, Kent MARUYAMA, Reina CECIL, Tom PYLE, matt
08:15	[293] Key points from IF02 - Photon Detectors	ESCOBAR, Carlos ROGAN, Christopher ESTRADA VIGIL, Juan
08:25	[294] Key points from IF03 - Solid State Detectors and Tracking	APRESYAN, Artur WORM, Steven AFFOLDER, Tony
08:35	[295] Key points from IF04 - Trigger and DAQ	DEIANA, Allison ACOSTA, Darin KETCHUM, Wesley
08:45	[296] Key points from IF05 - Micro Pattern Gas Detectors (MPGDs)	SURROW, Bernd TITOV, Maxim VAHSEN, Sven
08:55	[297] Key points from IF06 - Calorimetry	WHITE, Andy YEH, Minfang YOHAY, Rachel
09:05	[298] Key points from IF07 - Electronics/ASICs	CARINI, Gabriella PARSONS, John NEWCOMER, Mitch
09:15	[299] Key points from IF08 - Noble Elements	DAHL, Carl DAHL, Eric RAAF, Jennifer GUENETTE, Roxanne GUENETTE, Roxanne
09:25	[300] Key points from IF09 - Cross Cutting and Systems Integration	SHIPSEY, Ian SHIPSEY, Ian FAST, James GARCIA-SCIVERES, Maurice GARCIA-SCIVERES, Maurice GARCIA-SCIVERES, Mauricio
09:35	[301] Key points from IF10 - Radio Detection	KARLE, Albrecht CONNOLLY, Amy
09:45	Coffee break	
10:15	[302] IF report discussion and input from the community	ZHANG, Jinlong MERKEL, Petra BARBEAU, Phillip

Thursday, 21 July 2022

Instrumentation Frontier: IF7 - 307 (08:00 - 12:00)

-Conveners: Gabriella Carini; John Parsons; Mitch Newcomer

time	[id] title	presenter
08:00	[303] IF 07 Overview	CARINI, Gabriella PARSONS, John NEWCOMER, Mitch
08:20	[310] RF electronics	O'CONNOR, Paul
08:45	[305] Calorimetry	GONSKI, Julia
09:10	[306] Electronics for Fast Timing	BRAGA, Davide
09:35	[307] Optical Links	PARAMONOV, Alexander PARAMONOV, Alexander
10:00	Break	
10:15	[304] Enabling Capabilities	ARTUSO, Marina
10:40	[308] AI/ML on-detector electronics	TRAN, Nhan
11:05	[309] Cryoelectronics	VARNER, Gary
11:30	[311] Roundtable	

Friday, 22 July 2022

Instrumentation Frontier: IF8 - 288 (08:00 - 12:00)

-Conveners: Eric Dahl; Carl Dahl; Roxanne Guenette; Jennifer Raaf; Roxanne Guenette

time	[id] title	presenter
08:00	[455] Review of IF08 Topical Group Report	
10:00	[456] BREAK	
10:30	[457] Further discussion and community input to IF08 TG Report	

Instrumentation Frontier: IF5 - 238 (08:00 - 12:00)

-Conveners: Maxim Titov; Sven Vahsen; Bernd Surrow

time	[id] title	presenter
08:00	[583] MPGDs: Recent advances, current R&D, and the European Strategy	DEHMELT, Klaus
08:20	Q/A	
08:30	[584] MPGDs for nuclear physics experiments and a proposed MPGD center of excellence	POSIK, Matt
08:50	Q/A	
09:00	[585] MPGDs for Recoil imaging for DM, neutrino, and BSM physics	O'HARE, Ciaran
09:20	Q/A	
09:30	[586] MPGDs for TPCs at future lepton colliders	BELLERIVE, Alain
09:50	Q/A	
10:00	[587] Proposed TPC for Belle II Upgrade	LEWIS, Peter
10:20	Q/A	
10:30	[588] MPGDs for muon detection at future HEP colliders	BLACK, Kevin
10:50	Q/A	
11:00	[589] US-based MPGD User facility (Video presentation)	GNANVO, Kondo
11:20	Q/A	
11:30	[590] MPGD Summary	TITOV, Maxim VAHSEN, Sven

Instrumentation Frontier: IF9 - 284 (08:00 - 12:00)

-Conveners: James Fast; Ian Shipsey; Maurice Garcia-Sciveres

time	[id] title	presenter
08:00	[312] Report on the ECFA Detector R&D Roadmap	SHIPSEY, Ian
08:40	[313] Review of IF9 Report & BREAK from 10:00	SHIPSEY, Ian FAST, James GARCIA-SCIVERES, Maurice
10:30	[314] Community Input to Final Report	

Saturday, 23 July 2022

Instrumentation Frontier: Finalizing the Report with Community Input - 075 (10:00 - 12:00)

-Conveners: Petra Merkel; Phillip Barbeau; Jinlong Zhang

time	[id] title	presenter
10:00	[777] Detectors for e+e- colliders	HEINTZ, Ulrich HEINTZ, Ulrich
10:10	[844] Detectors for muon colliders	JINDARIANI, Sergo
10:20	[610] Roundtable with Topical Groups	

Sunday, 24 July 2022

Instrumentation Frontier: Informal Writing - 075 (10:00 - 12:00)

-Conveners: Phillip Barbeau; Petra Merkel; Jinlong Zhang

time	[id]	title	presenter
10:00	[611]	work on report	