

Seattle Snowmass Summer Meeting 2022

Wednesday, 20 July 2022

Theory Frontier: Astro-particle physics & cosmology (TF9); Theory of neutrino physics (TF11) - 214 (08:00 - 12:00)

-Conveners: Andre de Gouvea; Daniel Green

time	[id] title	presenter
08:00	[434] Fundamental Physics from Cosmic Surveys	WALLISCH, Benjamin
08:25	[435] Cosmological Bootstrap	JOYCE, Austin
08:50	[436] Dark Matter and Dark Sectors: from Theory to Discovery in the Lab	BARYAKHTAR, Masha
09:15	[437] Dark Matter and Dark Sectors: from Theory to Discovery in the Sky	FOSTER, Joshua
09:40	Coffee Break	
10:15	[438] Neutrino Theory and Particle Physics	Prof. EVERETT, Lisa
10:50	[439] Neutrino Theory and Nuclear Physics	WAGMAN, Michael
11:25	[440] Neutrino Theory and Astrophysics & Cosmology	GROHS, Evan

Thursday, 21 July 2022

Theory Frontier: Effective field theory (TF02); Lattice gauge theory (TF05) - 111 (08:00 - 12:00)

-Conveners: Zohreh Davoudi; Ethan Neil

time	[id] title	presenter
08:00	[425] EFTs for Dark Matter Phenomenology	ZHANG, Zhengkang
08:35	[426] Naturalness in Effective Field Theory	CRAIG, Nathaniel
09:10	[427] UV Constraints on IR Physics	Prof. DE RHAM, Claudia
09:45	Coffee Break	
10:15	[428] Lattice Gauge Theory for HEP: Overview	DAVOUDI, Zohreh
10:25	[429] Quark and Lepton Flavor Physics	WITZEL, Oliver
10:44	[430] Nucleons and nuclei for BSM searches and neutrino physics	WAGMAN, Michael
11:03	[431] Hadron structure for HEP	LIN, Huey-Wen
11:22	[432] Lattice for BSM exploration	NEIL, Ethan
11:41	[433] Computational Trends in LGT	BOYLE, Peter

Friday, 22 July 2022

Theory Frontier: TF04: Theory of Scattering Amplitudes - 175 (08:00 - 10:00)

-Conveners: Jaroslav Trnka; Zvi Bern

time	[id] title	presenter
08:00	[755] Modern Approach to Scattering Amplitudes	BERN, Zvi
08:30	[756] Amplitudes and Fundamental Physics (Zoom)	Prof. ELVANG, Henriette
09:00	[757] Amplitudes and Precision at Hadron Colliders	FEBRES CORDERO, Fernando
09:30	[758] Amplitudes and Gravitational Waves	Dr HERRMANN, Enrico

Theory Frontier: Theory techniques for precision physics (TF06); Collider phenomenology (TF07) - 111 (08:00 - 12:00)

-Conveners: Radja Boughezal; Shufang Su

time	[id] title	presenter
08:00	[679] Precision Theory for HEP: Overview	BOUGHEZAL, Radja
08:09	[419] Theoretical Developments in SMEFT Beyond Dim-6	PETRIELLO, Frank
08:41	[420] Theory Perspectives on the W mass	ISAACSON, Joshua
09:13	[421] Precision measurements and field theory: a virtuous cycle	Dr GARCIA GARCIA, Isabel
09:45	Coffee Break	
10:15	[848] TF07 (Collider Phenomenology) Overview	SU, Shufang
10:20	[422] New Observables for Precision Collider Physics	MOULT, Ian
10:50	[423] Computational Challenges for High-Energy Colliders	MALTONI, Fabio
11:20	[424] Machine Learning for Collider Theory	KRAUSE, Claudius
11:50	[849] Discussion of TF07 Report Executive Summary	SU, Shufang

Saturday, 23 July 2022

Theory Frontier: String theory, quantum gravity, black holes (TF01); CFT and formal QFT (TF03) - 238 (08:00 - 12:00)

-Conveners: Shamit Kachru; Nathaniel Craig

time	[id] title	presenter
08:00	[416] Particle Physics and String Theory	CVETIC, Mirjam
08:35	[417] Black Holes and Quantum Gravity	Prof. DONG, Xi
09:10	[418] Some New Ideas in QFT and Condensed Matter Physics	Prof. MCGREEVY, John
09:45	Coffee Break	
10:15	[407] The Bootstrap	Prof. PUFU, Silviu
10:50	[408] Generalized Symmetries	SHAO, Shu-Heng
11:25	[409] The Quest to Define QFT	DEDUSHENKO, Mykola

Theory Frontier: BSM Model Building (TF08); Quantum Information Science (TF10) - 210 (08:00 - 12:00)

-Conveners: Graham Kribs; simon catterall

time	[id] title	presenter
08:00	[410] Model Building Into the Future	MURAYAMA, Hitoshi
08:35	[411] New Ideas in Baryogenesis	MCKEEN, David
09:10	[412] Dark Matter and Dark Sectors	FENG, Jonathan
09:45	Coffee Break	
10:15	[413] Quantum Simulation	KLCO, Natalie
10:50	[414] Quantum Sensors	BERLIN, Asher
11:25	[415] Formal Aspects of Quantum Information	Prof. FAULKNER, Thomas

Sunday, 24 July 2022

Theory Frontier: Discussion and frontier reports - 110 (10:00 - 12:00)

-Conveners: Csaba Csaki; Aida El-Khadra; Nathaniel Craig