



UC SANTA BARBARA
Kavli Institute for
Theoretical Physics

[HOME](#)
[DIRECTORY](#)
[ACTIVITIES](#)
[PROPOSE ACTIVITY](#)
[APPLY](#)
[FOR VISITORS](#)

KITP Conference: Snowmass Theory Frontier Conference

(Feb 23-25, 2022)

Coordinators: Nathaniel Craig, Csaba Csaki, and Aida El-Khadra

Wednesday, Feb 23, 2022

8:45 AM Lars Bildsten (KITP) Tao Han (Pittsburgh)	Welcome
9:00 AM Juan Maldacena (IAS)	Formal theory vision talk
9:45 AM Eva Silverstein (Stanford)	Quantum gravity and cosmology
10:15 AM Xi Dong (UCSB)	Geometry and entanglement
10:30 AM David Gross (KITP)	String theory and unification
10:45 AM	Break
11:15 AM Clay Cordova (Chicago)	Supersymmetry Overview
11:45 AM David Simmons-Duffin (Caltech)	Bootstrap
12:00 PM Shu Heng Shao (IAS)	Generalized Symmetries
12:15 PM Ibrahima Bah (Johns Hopkins)	Geometric Classification of SCFTs
	Lunch
2:00 PM Raman Sundrum (Maryland)	Phenomenology vision talk
2:45 PM Tim Tait (UCI)	Dark Matter Models and Motivation
3:15 PM Devin Walker (Dartmouth)	New Ideas in Detection of Bosonic DM
3:30 PM Gilly Elor (U Mainz)	New Ideas in Baryogenesis
3:45 PM	Break
4:15 PM Julia Gonski (Columbia)	Snowmass Early Career
4:30 PM Howard Georgi (Harvard)	Physics in a diverse world
5:00 PM Howard Georgi (Harvard)	Discussion
5:30 PM	Cocktail Reception
6:00 PM	Dinner

Thursday, Feb 24, 2022

9:00 AM Thomas Hartman (Cornell)	Black holes and quantum information
9:30 AM Raphael Bousso (Berkeley)	Quantum information and geometry
10:00 AM Hank Lamm Iv (Fermilab)	Quantum simulations
10:15 AM Yoni Kahn (U Illinois)	Quantum sensors
10:30 AM	
	Break
11:00 AM Marius Wiesemann (MPI)	NNLO+PS generators using MiNNLO
11:15 AM Felix Kling (DESY)	Forward Physics Facility
11:30 AM Ian Moulton (Yale)	Conformal Colliders Meet the LHC: Rethinking Jets with Energy Correlators
12:00 PM Jesse Thaler (MIT)	ML for the Theory Frontier
	Lunch
2:00 PM Michael Wagman (Fermilab)	Lattice and neutrino interactions
2:20 PM Huey-Wen Lin (MSU)	Parton distribution functions
2:40 PM Thomas Blum (UConn)	Lattice and muon ($g-2$)
3:00 PM Bernhard Mistlberger (CTP)	The path forward to N ³ LO
3:30 PM Emanuele Mereghetti (LANL)	Testing the SMEFT at low- and high-energy
3:45 PM Davison Soper (U Oregon)	Future prospects for parton showers
4:00 PM	
	Break
4:30 PM Laura Reina (Florida State)	Energy Frontier
4:50 PM Lian-Tao Wang (U. Chicago)	Accelerator Frontier
5:10 PM Pedro Machado (Fermilab)	Neutrino Frontier
5:30 PM	

Cocktail Reception

6:00 PM

Dinner**Friday, Feb 25, 2022**

9:00 AM Lance Dixon (SLAC)	Collider physics and amplitudes
9:30 AM Nima Arkani-Hamed (IAS)	Theoretical aspects of scattering amplitudes
10:00 AM Mikhail Solon (Caltech)	Gravitational waves and scattering amplitudes
10:15 AM Henriette Elvang (Michigan)	EFTs and scattering amplitudes
10:30 AM	
	Break
11:00 AM Neal Weiner (NYU)	Astrophysics, Cosmology, and Model Building
11:30 AM Masha Baryakhtar (UW)	Axions and ultralight dark matter
11:50 AM Nicholas Rodd (CERN)	Dark matter indirect detection
12:10 PM Daniel Green (UCSD)	Cosmological probes of new physics

Lunch

2:00 PM Mehrdad Mirbabayi (ICTP)
2:20 PM Walter Goldberger (Yale)
2:40 PM Isabel Garcia Garcia (KITP)
3:00 PM Alexander Friedland (SLAC)
3:30 PM Mu Chun Chen (UCI)
3:45 PM Zahra Tabrizi (Northwestern)
4:00 PM

EFTs in cosmology
EFTs of gravity
WGC, Swampland, Implications
Overview of Neutrino Physics Challenges
The Neutrino Flavor Puzzle
BSM with Neutrinos and Neutrino Experiments

Break

4:30 PM Flip Tanedo (UC Riverside)
4:50 PM Steve Gottlieb (Indiana)
5:10 PM Alexey Petrov (Wayne State)
5:30 PM Sekhar Chivukula (UCSD)
5:40 PM

Cosmic Frontier
Computational Frontier
Rare & Precision Processes Frontier
Closeout

CONFERENCE END- SHUTTLE TO BWSCI *Also available to SB Airport and SB Airbus, Goleta location. (See Registration Desk BEFORE FRIDAY to sign up.)