



Designing Future CMB Experiments

March 19 - 23, 2018
Overview Schedule

Monday, March 19, 2018
Avery Library - Caltech

Short Course:
The Whys and Hows of Future Cosmic Microwave Background (CMB) Exploration
Introductory Lectures - Open to all interested students, researchers and faculty

Time	Event	Speaker
8:15 - 8:45	Coffee and Refreshments	
8:45 - 8:50	Logistics / Introduction	Michele Judd and Team Leads
8:50-9:00	Painting a Picture of the Cosmos	Graça Rocha
9:00 - 9:35	Inflationary Predictions for Cosmology	Joe Silk
9:35 - 10:10	Comments on Cosmological Predictions	Paul Steinhardt
10:10 - 10:45	Design Challenges for Future CMB Experiments	Alan Kogut
10:45 - 11:15	Break	
11:15 - 11:50	Peering at the CMB Through the Polarized Galaxy	Jacques Delabrouille
11:50 - 12:25	A Distorted View of the CMB?	Anthony Challinor
12:25 - 1:30	Short Course Ends: Informal Lunch is provided outside Avery Library	

**Invitation-Only Workshop Begins
Keck Center - Think Tank, Room 155**

1:30 - 1:45	Walk to Keck Center, pick up badge and welcome packet, find seat in the Think Tank	
1:45 - 2:30	Workshop Logistics and Introduction to KISS	Michele Judd
2:30 - 3:00	Participant Introductions	Michele Judd
3:00 - 3:30	Study Vision and Goals for this Workshop	Anthony Banday Brian Keating Graça Rocha
3:30 - 4:00	Break	
4:00 - 5:00	Finalize study vision and workshop goals via plenary discussion	Anthony Banday Brian Keating Graça Rocha
5:00 - 5:30	Solicitation of Lightning Talks	Anthony Banday Brian Keating Graça Rocha
5:30 - 5:50	Expected CMB Polarisation Signals in Bouncing Cosmologies	Anna Ijjas
5:50 - 6:10	The Latest Constraints on Polarised Dust Emission from Planck and PILOT	Anna Mangilli
6:10 - 6:30	Probing the Magnetic Field in Galactic Structures with Starlight Polarization	Georgia Panopoulou
6:30	Pack up and walk to the Athenaeum	
7:00	Dinner at the Athenaeum	

Tuesday, March 20, 2018 - Keck Center - Think Tank, Room 155

Time	Event	Speaker
8:00 - 8:30	Institute Opens - FREE THINK TIME	
8:30 - 9:00	Coffee and Refreshments at Keck Center	
9:00 - 9:10	Logistics and Team Lead Goals for the Day	Michele Judd and Team Leads
9:10 - 9:50	What Does it Mean to Talk About an Ultimate CMB Mission?	Jacques Delabrouille Krzysztof Gorski Charles Lawrence
9:50 - 10:30	Systematics: Critical Issues, Potential Solutions	Jamie Bock Brendan Crill Alan Kogut Matthieu Tristram
10:30 - 11:00	Break	
11:00 - 11:30	Lightning Talks (2) - each 10 mins with 5 mins discussion	TBD by participants
11:30- 11:45	Selection of Breakout Groups and Topics	All
11:45 - 12:45	Breakout Groups Meet	All
12:45 - 2:15	Group Picture and Lunch at the Athenaeum	
2:15 - 3:15	Breakout Groups Meet (continued)	All
3:15 - 3:45	FREE THINK TIME	All
3:45 - 4:15	Break	
4:15 - 5:00	Reports from Groups (15 mins each)	4 Groups
5:00 - 5:30	Discussion, selection of lightning talks	All
5:30	Pack up and head to no-host dinner	All
6:00	OPTIONAL: No-Host dinner organized by team leads	

Wednesday, March 21, 2018 - Keck Center - Think Tank, Room 155

Time	Event	Speaker
8:00 - 8:30	Institute Opens - FREE THINK TIME	
8:30 - 9:00	Coffee and Refreshments at Keck Center	
9:00 - 9:10	Logistics and Team Lead Goals for the Day	Michele Judd and Team Leads
9:10 - 9:50	Foregrounds: Critical Issues and Potential Solutions	R. Belen Barreiro Raphael Flauger Brandon Hensley Ingunn Wehus
9:50 - 10:30	Lensing: Critical Issues and Potential Solutions	Anthony Challinor Olivier Doré
10:30 - 11:00	Break	
11:00 - 11:30	Lightning talks (2) - 10 mins with 5 mins discussion	TBD by participants
11:30 - 11:45	Selection of Breakout Groups and Topics	All
11:45 - 12:45	Breakout Groups Meet	All
12:45 - 2:15	Lunch at the Athenaeum	
2:15 - 3:15	Breakout Groups Meet (continued)	All
3:15 - 3:45	FREE THINK TIME (individual, or self organizing small groups)	All
3:45 - 4:15	Break	
4:15 - 5:00	Report Outs from Breakout Groups (15 mins each)	4 Groups
5:00 - 5:30	Plenary Discussion, Selection of Lightning Talks	All
5:30	Pack up and head to No-Host Dinner	All
6:00	OPTIONAL: No-Host Dinner Organized by Team Leads	

Thursday, March 22, 2018 - Keck Center - Think Tank, Room 155

Time	Event	Speaker
8:00 - 8:30	Institute Opens - FREE THINK TIME	
8:30 - 9:00	Coffee and Refreshments at Keck Center	
9:00 - 9:10	Logistics and Team Lead Goals for the Day	Michele Judd and Team Leads
9:10 - 9:50	Polarized Sources: Critical Issues and Potential Solutions	Bruce Partridge R. Belen Barreiro Ingunn Wehus Steven Myers
9:50 - 10:30	Statistical Methods: Critical Issues and Potential Solutions	Jeff Jewell Anna Mangilli Graça Rocha Ingunn Wehus
10:30 - 11:00	Break	
11:00 - 11:30	Lightning talk (2) - 10 mins with 5 mins discussion	TBD by participants
11:30 - 11:45	Selection of Breakout Groups and Topics	All
11:45 - 12:45	Breakout Groups Meet	All
12:45 - 2:15	Lunch on your own	
2:15 - 3:15	Breakout Groups Meet (continued)	All
3:15 - 3:45	FREE THINK TIME (individual, or self organizing small groups)	All
3:45 - 4:15	Break	
4:15 - 5:00	Report outs from breakout groups (15 mins each)	Groups
5:00 - 5:30	Plenary Discussion, Selection of Lightning Talks	All
5:30	Pack up and walk to Athenaeum	All
6:00	Dinner at the Athenaeum (spouses and significant others invited)	

Friday, March 23, 2018 - Keck Center - Think Tank, Room 155

Time	Event	Speaker
8:00 - 8:30	Institute Opens - FREE THINK TIME	
8:30 - 9:00	Coffee and Refreshments at Keck Center	
9:00 - 9:30	Logistics and Team Lead Goals for the Day: Summary of ideas and keypoints from all sections	Michele Judd and Team Leads
9:30 - 10:30	Finalize outline of report, with clear identification of audience and recommendations: Open discussion of key findings	All
10:30 - 11:00	Break	
11:00 - 12:00	Final study activities and assignments with discussion on team interaction going forward and identification of funding opportunities	All
12:00 - 12:15	Workshop Closeout	Michele Judd
12:15	Workshop Concludes	