



# Determining the Interior Structure of Uranus - A Case Study for Leveraging Cross-Discipline Science to Answer Tough Questions

September 11-15, 2023  
Overview Schedule

## Monday, September 11, 2023 Sharp Lecture Hall - Arms Building (Building #25) - Caltech

**Short Course: What do we know about Uranus's interior? Preparation for a Uranus mission.  
Introductory Lectures - Open to all interested students, researchers and faculty**

Time	Event	Speaker
8:15 - 8:45	Coffee and Refreshments	
8:45 - 9:00	Logistics /Course Introduction	Janet Seid Mark Hofstadter
9:00 - 9:45	Giant Planet Formation: Reservoirs and Processes	Jonathan Lunine
9:45 - 10:30	Uranus's Evolution and Current Structure	Ravit Helled
10:30 - 11:00	Break	
11:00 - 11:45	Measurements to Constrain Uranus's Interior Structure	Krista Soderlund
11:45 - 12:30	Uranus Flagship Mission Constraints	Marzia Parisi
12:30 - 1:30	Short Course Ends: Informal Lunch is provided outside short course location	

## 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	Introduction to KISS Workshop Logistics	Michele Judd Janet Seid
2:30 - 3:00	Participant Introductions	Janet Seid
3:00 - 3:30	Study vision and goals for this workshop	Mark Hofstadter Ravit Helled Dave Stevenson
3:30 - 4:00	Break	
4:00 - 5:15	Finalize study vision and workshop goals via plenary discussion	Team Leads
5:15 - 5:30	Solicitation of Lightning Talks	Team Leads
5:30	Pack up and walk to the Athenaeum	All
6:00	Dinner at the Athenaeum	

## Tuesday, September 12, 2023 - 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 - 9:15	Logistics and Team Lead Goals for the Day	Janet Seid Ravit Helled
9:15 - 10:00	A review and brainstorming session: What measurements can we make to infer Uranus's interior structure:	Krista Soderlund
10:00 - 10:30	Lightning Talks (2)	TBD by participants
10:30 - 11:00	Break	
11:00 - 11:15	Overview of KISS Breakout Group Format Selection of Breakout Groups: Measurement to infer interior structure	Janet Seid All
11:15 - 12:30	Breakout Groups Meet	Groups
12:30 - 2:00	Group Picture and Lunch at the Athenaeum	
2:00 - 2:45	Report outs from breakout groups (15 mins each)	Groups
2:45 - 3:15	Lightning Talks (2)	TBD by participants
3:15 - 3:30	Selection of Breakout Groups: What knowledge gaps can we fill to be able to interpret the measurements we make?	All
3:30 - 4:00	Break	
4:00 - 5:30	Breakout Groups Meet	Groups
5:30 - 7:30	POSTER-ish SESSION and Informal food truck dinner at the Keck Center (dinner starts at 6:30 pm)	

## Wednesday, September 13, 2023 - Keck Center - Think Tank, Room 155

8:00 - 8:30	Institute Opens - FREE THINK TIME	
8:30 - 9:00	Coffee and Refreshments at Keck Center	
9:00 - 9:15	Logistics and Team Lead Goals for the Day	Janet Seid Dave Stevenson
9:15 - 9:45	Report Outs from Breakout Groups (10 mins each)	Groups
9:45 - 10:30	Plenary Discussion, how do we optimize the science return from the measurements we can make?	All
10:30 - 11:00	Break	
11:00 - 11:30	Group pulse on how the workshop is proceeding and what still needs to happen	All
11:30 - 12:30	Plenary Discussion, Selection of Breakout Groups: Are there additional knowledge gaps/measurements that need to be addressed?	All
12:30 - 2:00	Lunch at the Athenaeum	
2:00 - 3:30	Breakout Groups Meet	Groups
3:30 - 4:00	Break	
4:00 - 4:45	Report outs from breakout groups (15 mins each)	Groups
4:45 - 5:30	Lightning talks (3) or Plenary Discussion on Participant Wants and Needs	All
5:30	Workshop Day #3 Ends	All
5:30	Dinner on your own	

## Thursday, September 14, 2023 - Keck Center - Think Tank, Room 155

8:00 - 8:30	Institute Opens - FREE THINK TIME	
8:30 - 9:00	Coffee and Refreshments at Keck Center	
9:00 - 9:15	Logistics and Team Lead Goals for the Day	Janet Seid Mark Hofstadter
9:15 - 10:00	Putting it all together: Prepare outline of final report.	All
10:00 - 10:30	Lightning talks (2) or Selection of Breakout Groups	TBD by participants
10:30 - 11:00	Break	
11:00 - 12:30	Breakout Groups Meet or Plenary Discussion	All
12:30 - 2:00	Lunch on your own	
2:00 - 2:30	FREE THINK TIME (individual, or self organizing small groups)	All
2:30 - 3:15	Report outs from breakout groups (15 mins each)	Groups
3:15 - 3:30	Plenary Discussion	All
3:30 - 4:00	Break	
4:00 - 4:45	Plenary Discussion of Workshop Vision & Goals Part 1	All
4:45 - 5:30	Plenary Discussion of Workshop Vision & Goals Part 2 or Writing Session	All
5:30	Pack up and walk to the Athenaeum	All
6:00	Dinner at the Athenaeum	

**Friday, September 15, 2023 - Keck Center - Think Tank, Room 155**

<b>Time</b>	<b>Event</b>	<b>Speaker</b>
8:00 - 8:30	Institute Opens - FREE THINK TIME	
8:30 - 9:00	Coffee and Refreshments at Keck Center	
9:00 - 9:15	Logistics and Team Lead Goals for the Day	Janet Seid Team Leads
9:15 - 10:30	Pleanary Discussion: Path forward	All
10:30 - 11:00	Break	
11:00 - 12:15	Path Forward (continued) - action items assigned, etc. Discussion of report imagery, team collaboration plan, advocacy, papers, conferences, etc.	All
12:15 - 12:30	Workshop Closeout	Janet Seid Ravit Helled Mark Hofstadter Dave Stevenson
12:30	Formal Workshop Concludes	
12:30 - 1:30	Informal Lunch in the Keck Center Courtyard	
1:30 - 5:00	INFORMAL WORKSHOP SMALL GROUP COLLABORATION AND WRITING TIME	
5:00	Institute Closes	