

## **Enabling Fast Respose Missions to NEOs, ISOs, and LPCs**

October 24 - 28, 2022 Overview Schedule

## Monday, October 24, 2022 The Think Tank - Keck Center 155 - Caltech

## **Short Course: Rapid Response Space Missions to Small Celestial Bodies**

| Time          | Event   | Speaker                   |
|---------------|---|---------------------------|
| 7:30 - 8:15   | Institute opens early for workshop check in, SHOW PROOF OF VACCINATION, take your rapid test, affirm you are not symptomatic nor have had contact with anyone who is, pick up badge and welcome packet, find seat in the Think Tank |                           |
| 8:15 - 8:45   | Enjoy coffee and breakfast in the Keck Center courtyard   |                           |
| 8:45 - 9:00   | Logistics / Introduction  | Michele Judd<br>Team Lead |
| 9:00 - 9:45   | ISO, LPC, and NEO Science   | Karen Meech               |
| 9:45 - 10:30  | Importance of ISOs, LPCs, and NEOs to NASA and the Decadal Survey   | Carol Raymond             |
| 10:30 - 11:00 | Break   |                           |
| 11:00 - 11:45 | The Importance and Challenges of Rapid Response   | Kimee Moore               |
| 11:45 - 12:30 | Rapid Response Today - Comet Interceptor  | Geraint Jones             |
| 12:30 - 2:00  | Short Course Ends: Walk to Athenaeum for lunch  |                           |

| Invitation-Only Workshop Begins<br>Keck Center - Think Tank, Room 155 |   |              |
|---|---|--------------|
| 2:00 - 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                        | Team Leads   |
| 3:30 - 4:00   | Break   |              |
| 4:00 - 5:00   | Finalize study vision and workshop goals via plenary discussion | Team Leads   |
| 5:15 - 5:30   | Solicitation of Lightning Talks                                 | Team Leads   |
| 5:30 - 6:00   | Pack up and walk to the Athenaeum                               | All          |
| 6:00  | Dinner at the Athenaeum   |              |

| Tuesday, October 25, 2022 - Keck Center - Think Tank, Room 155 |   |                                |
|--|---|--------------------------------|
| Time   | Event   | Speaker                        |
| 8:00 - 8:30  | Institute Opens - FREE THINK TIME<br>Check in, affirm you are not symptomatic nor have had contact with anyone who is   |                                |
| 8:30 - 9:00  | Enjoy coffee and breakfast in the Keck Center courtyard   |                                |
| 9:00 - 9:15  | Logistics and Team Lead Goals for the Day   | Michele Judd and<br>Team Leads |
| 9:15 - 9:45  | Special Talk Topic #1: Detection and Characterization of Small Bodies - Current and Future Capabilities                 | Joe Masiero                    |
| 9:45 - 10:00   | Discussion  | All                            |
| 10:00 - 10:30  | Special Topic #2: Critical Elements in Developing a Science<br>Mission  | Julie Castillo-Rogez           |
| 10:30 - 10:45  | Discussion  | All                            |
| 10:45 - 11:15  | Break   |                                |
| 11:15 - 11:30  | Selection of Breakout Groups and Topics - What adaptations does your domain need to make to accommodate rapid response? | All                            |
| 11:30 - 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 and Topics   | All                            |
| 3:30 - 4:00  | Break   |                                |
| 4:00 - 5:30  | Breakout Groups Meet - Build a flow able of critical activities to develop a mission                                    | Groups                         |
| 5:30 - 7:30  | POSTER <i>ish</i> SESSION and Informal food truck dinner at the Keck Cent (dinner starts at 6:30 pm)                    | er                             |

| Wednesday, October 26, 2022 - Keck Center - Think Tank, Room 155 |   |                                |
|--|---|--------------------------------|
| 8:00 - 8:30  | Institute Opens - FREE THINK TIME  Take your rapid test if you did not take it in your hotel or at home, check in, affirm you are not symptomatic nor have had contact with anyone who is   |                                |
| 8:30 - 9:00  | Enjoy coffee and breakfast in the Keck Center courtyard   |                                |
| 9:00 - 9:15  | Logistics and Team Lead Goals for the Day   | Michele Judd and<br>Team Leads |
| 9:15 - 9:45  | Report Outs from Breakout Groups (10 mins each)   | Groups                         |
| 9:45 - 10:15   | Special Topic #2 Talk: What Makes a Small Body Compelling?  | Paul Chodas                    |
| 10:15 - 10:30  | Discussion  | All                            |
| 10:30 - 11:00  | Break   |                                |
| 11:00 - 11:30  | Special Topic #3 Discussion: Rapid Response Architectures   | All                            |
| 11:30 - 11:45  | Discussion  | All                            |
| 11:45 - 12:30  | Plenary Discussion, Selection of Breakout Groups and Topics   | All                            |
| 12:30 - 2:00   | Lunch at the Athenaeum  |                                |
| 2:00 - 3:30  | Breakout Groups Meet: What additional architectures can we identify? How quickly can we proceed from detection to launch under different architectures? Based on the flow chart designed yesterday, what is the critical path, or incompressible set of activities, that must take place after detection? | All                            |
| 3:30 - 4:00  | Break   |                                |
| 4:00 - 4:45  | Report outs from breakout groups (15 mins each)   | Groups                         |
| 4:45 - 5:30  | Plenary Discussion on Participant Wants and Needs<br>Selection of Next Day's Breakout Groups  | All                            |
| 5:30   | Workshop Day #3 Ends  | All                            |
| 6:00   | OPTIONAL: No-Host Dinner in Pasadena  |                                |

| Thursday, October 27, 2022 - Keck Center - Think Tank, Room 155 |   |                                |
|---|---|--------------------------------|
| 8:00 - 8:30   | Institute Opens - FREE THINK TIME<br>Check in, affirm you are not symptomatic nor have had contact with anyone who is   |                                |
| 8:30 - 9:00   | Enjoy coffee and breakfast in the Keck Center courtyard   |                                |
| 9:00 - 9:15   | Logistics and Team Lead Goals for the Day   | Michele Judd and<br>Team Leads |
| 9:15 - 10:00  | Special Topic #4 Talk/Discussion: How do we decide whether or not a target, after detected, is worthy of a dedicated mission? Science, engineering, programmatic  | All                            |
| 10:00 - 10:30   | Lightning talks (2)   | TBD by participants            |
| 10:30 - 11:00   | Break   |                                |
| 11:00 - 12:30   | Breakout Groups Meet: What changes do we need to make to our current way of doing business to enable these architectures? Who needs to make these changes and what can we do today to get the ball rolling? | 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, Selection of Breakout Groups  | All                            |
| 3:30 - 4:00   | Break   |                                |
| 4:00 - 5:30   | Break Out Sessions: Develop a list of critical enabling activities including process development, technology development, or partnership development, for the top architectures.                            | Groups                         |
| 5:30  | Workshop Day #4 Ends  | All                            |
| 6:00  | Dinner at the Athenaeum   |                                |

| Friday, October 28, 2022 - Keck Center - Think Tank, Room 155 |   |                                |
|---|---|--------------------------------|
| Time  | Event   | Speaker                        |
| 8:00 - 8:30   | Institute Opens - FREE THINK TIME<br>Check in, affirm you are not symptomatic nor have had contact with anyone who is   |                                |
| 8:30 - 9:00   | Enjoy coffee and breakfast in the Keck Center courtyard   |                                |
| 9:00 - 9:15   | Logistics and Team Lead Goals for the Day   | Michele Judd and<br>Team Leads |
| 9:15 - 10:00  | Breakout Groups Report Out  | All                            |
| 10:00 - 10:30   | Open Discussion of Breakout Group Recommendations and Path Forward to the final report  | All                            |
| 10:30 - 11:00   | Break   |                                |
| 11:00 - 12:15   | Create a schedule of events to enable a future rapid response mission. What do we need to do today so that the next time an ISO, LPC, or NEO is discovered, we will be able to respond? | All                            |
| 12:15 - 1:30  | Working Lunch   |                                |
| 1:30 - 3:00   | Create a list of action items for individuals within the group, develop writing assignments for the final report  | All                            |
| 3:00 - 3:15   | Workshop close out  | Michele Judd                   |
| 3:15 - 5:00   | INFORMAL WORKSHOP SMALL GROUP COLLABORATION TIME or WRITING TIME  |                                |
| 5:00  | Institute Closes  |                                |