

Science with NEO Surveyor
Date: May 7-9, 2024
Location: Catamaran Resort, San Diego, CA
Draft date: 2024-05-06

Workshop Agenda

Topics in red font are intended to have limited capability for remote participation via Zoom:

<https://caltech.zoom.us/j/89684423800?pwd=ZjNNRFJMSG5jVWQrTmtJWjXgyM3BQUT09>

Meeting ID: 896 8442 3800

Passcode: 099942

- Tuesday May 7, 2024
 - 8:30 AM – 9:00 AM PDT: Breakfast
 - 8:55 AM – 9:00 AM PDT: Joe (logistics) & Lindley
 - 9:00 AM – Noon PDT: **Intro to NEO Surveyor and mission description**
 - 9:00 – 9:30: Intro to Surveyor, simulations – Amy Mainzer
 - 9:30 – 10:00: Project Overview – Tom Hoffman
 - 10:00 – 10:30: PSE overview; instrument overview – Serge Dubovitsky
 - 10:30 – 10:50: Break
 - 10:50 – 11:10: Mission System – Mark Rokey
 - 11:10 – 11:30: Orbit and Nav – Mar Vaquero
 - 11:30 – 12:00: Mission Planning – Chris Lawler
 - Noon – 1:00 PM PDT: Lunch
 - 1:00 – 1:45: NSDS and IRSA – Roc Cutri
 - 1:45 – 2:00: Calibration and Noise Estimates – Sean Carey
 - 2:00 – 2:30: Survey Simulator Design and Validation – Dar Dahlen
 - 2:30 – 3:00: Description of example data – Joe Masiero
 - 3:00 – 5:00: attendees download, interact with sample data
 - 6:00 PM – 8:15 PM PDT: Group Dinner on the Bahia Belle Sternwheeler
- Wednesday May 8, 2024
 - 8:30 AM – 9:00 AM PDT: Breakfast
 - **Invited speaker presentations on synergies with other science and surveys**
 - 9:00 – 9:20: Federica Spoto: *"Minor Planet Center: preparing for NEO Surveyor"*
 - 9:20 – 9:40: Dave Jewitt: *"Comet Science from NEO Surveyor"*
 - 9:40 – 10:00: Ed Rivera-Valentín: *"Ground-based radar NEO observations and synergies with NEO Surveyor"*
 - 10:00 – 10:20: Michele Bannister: *"Interstellar objects: opportunities for NEO Surveyor and Rubin"*
 - 10:20 – 10:40: Sarah Greenstreet: *"Exploring synergies between NEO Surveyor and Rubin Observatory"*

- 10:40-10:50 Break
- **Invited Early Career presentations**
 - 10:50 – 11:00: Yuna Kwon: *COSINE (Cometary Object Study Investigating their Nature and Evolution)*
 - 11:00 – 11:10: Kiana McFadden: *Main-Belt Asteroid Thermal Modeling*
 - 11:10 – 11:20: Yaeji Kim: *CO+CO₂ production in Comet C/2020 F3 (NEOWISE)*
 - 11:20 – 11:30: Brian Murphy: *The Importance of Hyperspectral Monitoring of Planetary Defense Tests*
 - 11:30 – 11:40: Rosemary Dorsey: *Interstellar object visibility in LSST*
 - 11:40 – 11:50: Garrett Levine: *Detection and Dynamics of Small Near-Earth Objects*
 - 11:50 – 12:00: Pranvera Hyseni: *Experimental Constraints on the Composition of Soluble Organic Matter (SOM) and Ammoniated Salts on the Surface of Hydrated Asteroids*
- 12:00 – 1:00 PM PDT: Lunch
- **Invited Early Career presentations (con't)**
 - 1:00 – 1:10: Xavier Inosencio: *Characterization of two analogous objects: the case of 1990 UQ and 2022 NX1*
 - 1:10 – 1:20: Michael Lucas: *Evidence for early fragmentation-reassembly of stony meteorite parent bodies*
 - 1:20 – 1:30: John Forbes: *Streams of interstellar objects*
 - 1:30 – 1:40: Yoonyoung Kim: *NEOWISE Observations of Comet P/2010 H2*
- 1:40 – 2:00 PM PDT: Introduction of sample science topics – Yoonyoung Kim
- 2:00 – 5:00 PM PDT: Small group breakout sessions to work on science topics
- **Thursday May 9, 2024**
 - 8:30 AM – 9:00 AM PDT: Breakfast
 - 9:00 AM – 10:30 AM PDT: Small group presentations on findings
 - 10:30 – 10:40 AM PDT: Break
 - 10:30 AM – noon PDT: Additional simulated data distribution, group reshuffle, science topic work session
 - noon – 1:00 PM PDT: Lunch
 - 1:00 PM – 3:30 PM PDT: Continued Science Topic work session
 - 3:30 PM – 4:30 PM PDT: Small group presentations on findings
 - 4:30 PM – 4:45 PM PDT: Lessons Learned – Joe Masiero
 - 4:45 PM – 5:00 PM PDT: Closing remarks – Amy Mainzer