

**Towards Starlight Suppression for the Habitable Worlds Observatory Workshop**  
**August 8-10, 2023**  
**Pasadena, CA, USA**

| Day 1: Tuesday August 8                              |                      |   |  |   |
|--|----------------------|---|--|---|
|  | Start Time (Pacific) | Duration  | Speaker  | Title   |
|  | 7:30                 | 0:30  | Check-In, pick up name tags  |   |
|  | 8:00                 | 0:15  | Nick Siegler <i>NASA JPL, ExEP Chief Technologist</i><br>Laura Coyle <i>Ball Aerospace</i><br>Jennifer Gregory <i>NASA JPL, ExEP</i> | Welcome, Agenda, Logistics  |
| Habitable Worlds Observatory<br>Chair: Mike McElwain | 8:15                 | 0:15  | Mark Clampin, <i>NASA HQ, Astrophysics Division Director</i>   | Habitable Worlds Observatory Overview                                 |
|  | 8:30                 | 0:30  | Shawn Domagal-Goldman, <i>NASA HQ, GOMAP Scientist</i>   | Recent HWO-Related Studies  |
|  | 9:00                 | 0:30  | Paul Scowen, <i>NASA GSFC</i>  | General Astrophysics Needs and Coronagraphy                           |
|  | 9:30                 | 0:30  | Laurent Pueyo, <i>STScI</i>  | Considerations Between Coronagraph Robustness and Telescope Stability |
|  | 10:00                | 0:10  | Laurie Leshin, <i>NASA JPL, Director</i>   | Welcome   |
|  | 10:10                | 0:20  | Break  |   |
|  | 10:30                | 0:30  | Chris Stark, <i>NASA GSFC</i>  | Exoplanet Yield Modeling  |
|  | 11:00                | 0:30  | Open Discussion  |   |
| Coronagraphy<br>Chair: Nick Siegler                  | 11:30                | 0:45  | Jeremy Kasdin, <i>Princeton</i><br>Vanessa Bailey, <i>NASA JPL</i>   | Basic Principles of Coronagraphy and the Roman Coronagraph Instrument |
|  | 12:15                | 1:00  | Lunch  |   |
|  | 13:15                | 0:20  | Brendan Crill, <i>NASA JPL, ExEP</i>   | Coronagraph Technology Gaps   |
|  | 13:35                | 0:40  | Bertrand Mennesson, <i>NASA JPL</i><br>Emiel Por, <i>STScI</i>   | Coronagraph Testbed Results   |
|  | 14:15                | 0:30  | John Krist, <i>NASA JPL</i>  | Roman Coronagraph Modeling and Error Budget                           |
|  | 14:45                | 0:20  | Tyler Groff, <i>NASA GSFC</i>  | Deformable Mirror Technology Roadmap                                  |
|  | 15:05                | 0:30  | Open Discussion  |   |
| 15:35  |                      | end of day 1 talks  |  |   |
| 15:35  | 1:00                 | Afternoon social - meet in the courtyard for hors d'oeuvres and socializing |  |   |

| Day 2: Wednesday August 9           |                      |          |   |  |
|-------------------------------------|----------------------|----------|---|--|
|                                     | Start Time (Pacific) | Duration | Speaker   | Title  |
| Coronagraphy<br>Chair: Nick Siegler | 8:00                 | 0:20     | Rus Belikov, <i>NASA ARC</i>  | Coronagraph Design Survey                              |
|                                     | 8:20                 | 0:30     | Pin Chen, <i>NASA JPL, ExEP</i>   | Coronagraph Technology Roadmap                         |
|                                     | 8:50                 | 0:30     | Garreth Ruane, <i>NASA JPL</i>  | Coronagraph Testbed Successes and Challenges           |
|                                     | 9:20                 | 0:30     | Olivier Guyon, <i>University of Arizona</i>                                 | Coronagraph Approaches to Relax Telescope Requirements |
|                                     | 9:50                 | 1:00     | Open Discussion   |  |
|                                     | 10:50                | 0:20     | Break   |  |
| Starshade<br>Chair: Alison Nordt    | 11:10                | 0:15     | Sara Seager, <i>MIT</i>   | Starshade Introduction                                 |
|                                     | 11:25                | 0:45     | Stuart Shaklan, <i>NASA JPL</i><br>Doug Lisman, <i>NASA JPL</i>             | Starshade Attributes                                   |
|                                     | 12:10                | 1:00     | Lunch   |  |
|                                     | 13:10                | 0:25     | Rhonda Morgan, <i>NASA JPL</i>  | Starshade Yields                                       |
|                                     | 13:35                | 0:05     | Brendan Crill, <i>NASA JPL, ExEP</i>  | Starshade Technology Gaps                              |
|                                     | 13:40                | 0:25     | Stuart Shaklan, <i>NASA JPL</i>   | Optical Performance and Formation Sensing              |
|                                     | 14:05                | 0:05     | Brendan Crill, <i>NASA JPL, ExEP</i>  | Assessing Starshade Technology Readiness               |
|                                     | 14:10                | 0:25     | Manan Arya, <i>Stanford</i>   | Mechanical Deployment and Stability                    |
|                                     | 14:35                | 0:20     | Serena Ferraro, <i>NASA JPL</i>   | Ongoing Mechanical Activities and Next Steps           |
|                                     | 14:55                | 0:35     | Open Discussion   |  |
|                                     | 15:30                |          | end of day 2 talks  |  |
|                                     | 15:30                | 1:00     | Afternoon Social - meet in the courtyard for hors d'oeuvres and socializing |  |

**Day 3: Thursday August 10**

|   | <b>Start Time (Pacific)</b> | <b>Duration</b> | <b>Speaker</b>  | <b>Title</b>   |  |
|---|-----------------------------|-----------------|---|--|--|
| <b>Ultra-Stable Observatory</b><br>Chair: Chris Stark | 8:00                        | 1:00            | Lee Feinberg, <i>NASA GSFC</i><br>Laura Coyle, <i>Ball Aerospace</i><br>Dave Redding, <i>NASA JPL</i><br>John Tesch, <i>NASA JPL</i><br>Breann Sitarski, <i>NASA GSFC</i> | Ultrastable Roadmap Working Group Overview and Status, HWO Stability Goals |  |
|   | 9:00                        | 0:40            | Mike McElwain, <i>NASA GSFC</i>   | JWST Stability   |  |
|   | 9:40                        | 0:30            | Alice Liu, <i>NASA GSFC</i>   | Roman Space Telescope: Stability Performance for Coronagraph               |  |
|   | 10:10                       | 0:20            | Break   |  |  |
|   | 10:30                       | 0:20            | Laura Coyle, <i>Ball Aerospace</i>  | Error Budgeting  |  |
|   | 10:50                       | 0:20            | Alison Nordt, <i>Lockheed Martin</i>  | Integrated Modeling  |  |
|   | 11:10                       | 0:30            | Mike Menzel, <i>NASA GSFC</i>   | Micrometeoroids  |  |
|   | 11:30                       | 0:30            | Open Discussion   |  |  |
|   | 12:00                       | 1:00            | Lunch   |  |  |
| <b>Looking Ahead</b><br>Chair: Dimitri Mawet          | 13:00                       | 0:30            | Shawn Domagal-Goldman, <i>NASA HQ, GOMAP Scientist</i>  | How is NASA Structuring GOMAP and Work Towards HWO?                        |  |
|   | 13:30                       | 0:45            | Lee Feinberg, <i>NASA GSFC</i><br>Marie Levine, <i>NASA JPL</i>   | System Interactions  |  |
|   | 14:15                       | 0:20            | Brendan Crill, <i>NASA JPL, ExEP</i>  | Funded Work Addressing Technology Gaps                                     |  |
|   | 14:35                       | 0:20            | Chris Stark, <i>NASA GSFC</i>   | Science Risks  |  |
|   | 14:55                       | 0:20            | Rus Belikov, <i>NASA ARC</i><br>Roser Juanola Parramon, <i>NASA GSFC</i>  | Risks, Concerns, Opportunities identified during the workshop              |  |
|   | 15:15                       | 0:30            | Open Discussion   |  |  |
|   | 15:45                       | 0:15            | Nick Siegler <i>NASA JPL, ExEP Chief Technologist</i>   | Workshop Wrap Up   |  |
|   | 16:00                       |                 | Conclude Workshop   |  |  |
|   |                             |                 |   | agenda version 25Jul2023   |  |