NASA's Cryospheric Sciences Program Newsletter Spring/Summer 2022

Program News

Studies with ICESat-2 DAPR Town Halls. NASA will host two virtual town hall meetings to discuss the implementation of dual-anonymous peer review (DAPR) for the A.32 Studies with ICESat-2 solicitation. See https://science.nasa.gov/researchers/dual-anonymous-peer-review for general information about DAPR. One town hall will be held on Wednesday June 15 at 12 pm Eastern Time, and a second town hall being held on Monday September 12 at 3pm Eastern Time. A recording of one of the town halls and slides will be provided online prior to the proposal deadline.

The town halls will: (1) discuss the motivation for switching to dual-anonymous peer review, (2) explain how dual-anonymous peer reviews work, and (3) describe how to write proposals that are compatible with dual-anonymous peer review. Attendees will have the opportunity to anonymously ask questions to the panelists. Attendance at the town hall will be anonymous and your name will not be visible to other attendees. In advance of (and during) each town hall, questions may be submitted anonymously and upvoted at: https://nasa.cnf.io/sessions/hyb3/#!/dashboard.

Webex information can be found in the A.32 solicitation PDF document.

Interested in learning more about the NISAR mission? Registration for the NISAR Community Science Workshop being held in-person in Pasadena, CA from August 30-Sept 1 is open until July 15th! Learn more about the workshop here.

NASA's Transform to Open Science (TOPS) Initiative. Within the TOPS mission, NASA is designating 2023 as the Year of Open Science, a global community initiative to spark change and inspire open science engagement through events/activities that will shift the current paradigm. It's important to recognize that TOPS is only a starting point; NASA is committed to longer-term support for building an inclusive open science community over the next decade. Sign up for TOPS community email updates here!

NASA's open science initiatives and framework development are a work-in-progress. Guidance for PIs will continuously be evolving and improving! **Do you have a great idea about how best to implement these changes, or do you have an open science/open-source science success story? Let us know!**

Planning on proposing to an upcoming Cryospheric Sciences/ICESat-2 solicitation? Proposers are required to include open science in their work plans to achieve the following goals:

- Progress is accelerated to the maximum extent possible by sharing advances during the conduct of investigations, not just at the publication stage. This sharing:
  - Includes scientific results and analytic approaches,
  - Occurs within and across science disciplines, and
  - Happens openly and frequently via team meetings, contributions to open repositories, and other communications with colleagues.
- Workflows are documented to facilitate sharing of advances and validating results by using open-source digital notebooks, regular updates to appropriate open code repositories, and ensuring critical ancillary data sets are available.
- Crediting individuals making similar pre-publication contributions wherever possible.

Earth System Observatory (ESO) Missions Update

Atmosphere Observing System (AOS), Mass Change (MC) and Surface Biology and Geology (SBG) continue in Pre-Phase A development. The purpose of Pre-Phase A is to produce a broad spectrum of ideas and alternatives for missions from which new programs/projects can be selected. During Pre-Phase A, a study or proposal team analyses a broad range of mission concepts that can fall within technical, cost, and schedule constraints and that contribute to program and SMD goals and objectives. Pre-Phase A effort could include focused examinations on high-risk or high technology development areas.

How will observations of the cryosphere be a part of the ESO missions?
AOS: This mission plans to carry a Doppler radar onboard in near-polar orbit. This should provide unprecedented observations of polar precipitation. Learn more here!
MC: Satellite-satellite-tracking architecture will enable continuity with GRACE-FO and continue to provide moderate resolution observations of ice sheet mass loss. Learn more here!
SBG: Hyperspectral imagery in the visible, shortwave IR and thermal IR will provide observations in a near-polar orbit of snow and ice accumulation, melting, and albedo, which were listed in the Decadal Survey as observing priorities for this mission. Learn more here!
SDC (Surface Deformation & Change): This mission will likely serve as a follow on to NISAR, utilizing synthetic aperture radar (SAR) to monitor precise changes in ice sheet/glacier velocities and grounding line positions to improve projections of sea level rise, as well as providing precise measurements of sea ice surface characteristics and thickness for the science community as well as operational stakeholders. Learn more here!

Don't forget to continue submitting your recent publications/science highlights to the ESD Research Results Portal!

Funding Opportunities of Interest
A.20 Terrestrial Hydrology (due 15 September 2022)
A.28 Interdisciplinary Research in Earth Sciences (due 16 November 2022)
A.32 Studies with ICESat-2 (due 12 October 2022)
A.44 Commercial Smallsat Data Scientific Analysis (due date TBD)

Upcoming Events
Studies with ICESat-2 DAPR Town Hall (online) – 15 June 2022
International Summer School in Glaciology – 7 July-17 July 2022, McCarthy, AK
ICESat-2 Summer Sea Ice Airborne Campaign – 7-21 July 2022, Thule AFB, Greenland
NASA Transform to Open Science Community Panel (online) – 14 July 2022 and 11 Aug 2022
Studies with ICESat-2 DAPR Town Hall (online) – 12 Sept 2022
West Antarctic Ice Sheet (WAIS) Workshop (online and in-person) – 26-29 September 2022, Estes Park, CO