

Introduction & Welcome From the Chairs

Welcome to the Distributed Sensing Technical Committee!

This initiative was founded in recognition of the rapid innovations occurring in Earth sensing across all domains supported by AGU. Many of us face the need to collect measurements distributed across diverse environments—often under complex and remote conditions. We must also manage, analyze, share, and integrate data from multiple sources to generate actionable insights that inform a wide range of end users.

Although our sensing needs may vary across disciplines, we share common challenges and opportunities. By learning from one another about how to build, deploy, and leverage sensing systems, we can accelerate progress toward more effective and interoperable approaches to measuring the Earth.

The goal of this Technical Committee is to break down disciplinary barriers and support a collaborative community committed to advancing and disseminating all forms of distributed sensing technologies (including, but not limited to, individual sensors, sensor networks, and remote sensing). Whether you bring years of experience or are deploying your very first sensor, this is a community for you.

We invite you to join us—let's measure together!

Stephen Moysey (Chair) & Emily Elhacham (Co-Chair)
AGU Distributed Sensing Technical Committee (DS TC)

The mission of the Distributed Sensing Technical Committee is to advance the understanding, development, and application of cutting-edge distributed sensing technologies across AGU Sections. As a cross-cutting initiative hosted by the Hydrology Section, the Technical Committee aims to coordinate activities across all AGU Sections to support sharing of knowledge, best practices, and emerging technologies for distributed sensing in all disciplines, inclusive of sensor networks, fiber optic (distributed) sensing, geophysics and remote sensing.

Planning for AGU25

Proposal Deadline for General Sessions, MacGyver Sessions, Town Halls, and Workshops: April 23, 2025

[AGU25](#) is rapidly approaching! The deadline for session, town hall, and workshop proposals is April 23, 2025. The DS TC Session Development and Professional Development & Training Subcommittees have identified the following possible sessions for AGU25:

- General Sessions:
 - Broad discussions on distributed sensing advancements and applications.
- Poster Sessions:
 - MacGyver Poster Sessions highlighting novel and creative measurement solutions (coordinated across AGU sections)
- Town Hall:
 - Best Practices for Distributed Sensing Networks
- Workshops:
 - In-Situ Sensing (Organizers: Chet Udell, Alex Manda)
 - Remote Sensing (Organizer: Nicola Falco)
 - Geospatial Analysis for Remote Sensing (Organizer: Vinit Sehgal)
 - DTS/DAS Applications (Organizer: Nicola Falco)



The Sessions Subcommittee also encourages those with connections to the remote sensing, DTS/DAS, and AmeriFlux or other sensing communities to collaborate in proposing sessions. To submit your ideas, please add them to our [Google spreadsheet](#).

If you are interested in being involved in any of these activities, please reach out to the contact person above. If you have an alternative session or workshop idea that you would like help with, we will try to support you in coordinating and advertising your session. Contact Chet Udell (udellc@oregonstate.edu) and Nicola Falco (nicolafalco@lbl.gov).

AGU Resources for Uncertain Times

From frozen grants to unexpected firings, from DEI bans to the defunding of long-term federal science programs, scientists across the U.S. and around the globe are being impacted by the ongoing U.S. Administration's activities to dismantle science. AGU is taking steps to support our communities, from taking legal action on behalf of members to compiling timely resources you can use:

- [Let AGU know how your work has been impacted](#)
- [Get the latest AGU Leadership updates](#)
- [Explore Career Guidance](#)
- [Request fee waivers](#)
- [View additional AGU resources](#)

Community members are also encouraged to share relevant resources through the DS TC [listserv](#) or [newsletter](#).



Fiber-optic cables after being installed in a trench. *Image Credit: J. Ajo-Franklin*

Attention ECR & Students!

Let us feature your recent publication on distributed sensing methods and applications! Reach out to the Student and Early Career Subcommittee through Evan King (e_king@mit.edu).

“AGU stands united with our members and our entire scientific community, especially in this moment, where federally funded science and the dedicated scientists who carry out this essential work need us to speak up, together.”

– Janice R. Lachance
18 February 2025

Get involved!

Everyone in the distributed sensing research community and across all AGU sections is invited to get involved in the Technical Committee!

Join the Email Group

Join the Technical Committee email group to get updates, participate in planning discussions, share resources, and receive meeting announcements. All members can post. The list is currently very low-volume. To join, send an email to DS TC Secretary, Aleksei Nelaev (nelaevaleksei@gmail.com).

Be a Section Liaison!

Are you on the executive committee of another AGU Technical Committee or Section? Can you help with communication between our groups, to share opportunities and coordinate collaborations?

Submit to Future Newsletters!

Help us build this newsletter into a community resource!

- Know of events or opportunities of interest to the community?
- Want to share photos?
- Have other announcements to share?

[Submit suggestions through the DS TC suggestion form anytime!](#)

Join a Subcommittee!

Learn more about subcommittees in this issue of our newsletter, and volunteer.

Community Calendar

Upcoming events and deadlines that may be of interest to the Distributed Sensing research community:

[SAGEEP 2025/3rd Munitions Response Meeting](#)

Date: 13–17 April 2025

[AGU 2025 Fall Meeting](#)

Date: 15–19 December, 2025

Session/Workshop/Townhall

Proposal Deadline: 23 April 2025

Abstract Deadline: 30 July 2025

[EGU General Assembly 2025](#)

Date: 27 April 27– 2 May, 2025

[Near-Surface Geoscience 2025:](#)

[Expanding Horizons](#)

Date: September 7–11, 2025

Abstract Deadline: May 1 2025

[Learn Do-It-Yourself Electronics for Environmental Monitoring](#)

Date: May 20–21, 2025

For the full calendar:

- [View the calendar online](#)
- [Subscribe to the Google calendar](#)
- [Submit events and deadlines for the calendar](#)



Subcommittees: Updates & Call for Volunteers

Volunteers are the backbone of the DS TC! This is a community driven committee, organized by the community, for the community. Check out the subcommittee update below, and then jump in and get involved! To volunteer, email Aleksei Nelaev at nelaevaleksei@gmail.com.

Student and Early Career Subcommittee

Overview: The Student and Early Career Subcommittee will coordinate activities of student and early-career representatives to promote the involvement and recognition of students and early-career scientists within the distributed sensing community.

Subcommittee 2025 Goals

- Facilitate networking opportunities for cross-disciplinary connections and career opportunities;
- increase student and early career scientists' access to new sensing techniques and applications.

Proposed 2025 Activities

- Technology-focused workshops and webinars that connect students and early career scientists to later stage scientists in industry, government, and academia.
- Highlight the contributions of students and early career scientists in the DS TC newsletter or website.

Lead: Evan King, MIT



Installing LoRaWAN sensors at a NC ag site.
Image Credit: B. Dessimond

Standards and Practices Working Group

Overview: The Standards and Practices Group will spearhead the identification and distribution of standards and best practices for the broader community, ensuring that knowledge is shared and accessible. *This committee is in the process of launching.*

AGU Session Development Subcommittee

Overview: The AGU Session Development Subcommittee will take the lead in proposing and organizing AGU sessions that focus on distributed sensing technologies, advancing the committee's visibility and impact within the AGU. The subcommittee will also lead efforts to coordinate OSPA needs for AGU meetings

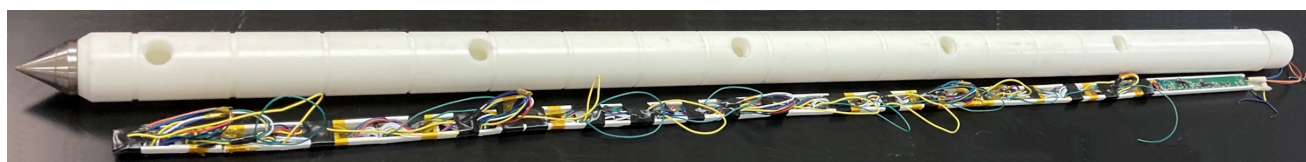
Subcommittee 2025 Goals

- Increase awareness and community engagement;
- silo-busting and promoting interdisciplinary collaboration;
- increase cross-AGU innovation through MacGyver activities, highlights, and awards.

Proposed 2025 Activities

- proposing and coordinating workshops, sessions, and professional development at AGU meetings;
- newsletter updates highlighting MacGyver initiatives and community updates;
- maintaining the MacGyver Sessions GitHub repository;
- identify opportunities for special journal issues.

Leads: Chet Udell (Oregon State), Nicola Falco (Berkeley National Lab)



FluxTool: Electrical Conductivity Tomographic Probe for Riverbeds and Soils, by [Selker and others](#), at [AGU23 MacGyver Poster Session H41S](#).

Publications and Conferences Group

Overview: The Publications and Conferences Group will drive efforts to propose and coordinate special issues, conferences, and workshops (e.g., Chapman conferences) related to distributed sensing technologies.

This committee has not launched yet. Volunteer to get it started!

Professional Development & Training Group

Overview: The Professional Development & Training Group will develop content and models for distributed sensing training, promoting broad participation and skill-building opportunities for AGU members.

Subcommittee 2025 Goals

- Increase the Distributed Sensing community awareness of relevant training and events.
- Expand the subcommittee membership to reflect a wider variety of AGU sections.
- Collaborate with other DS TC subcommittees to identify needs and priorities for AGU25.

Proposed 2025 Activities:

- Solicit and disseminate announcement of events and training through the DS TC newsletter, calendar, email group, and social media channels.
- Recruit additional subcommittee members from across disciplines, through section liaisons, newsletter, and other means.
- Actively collaborate with Session Development and Student and Early Career Subcommittees on AGU25 potential workshop and session proposals, providing planning and implementation support as needed.
- Identify and organize one to two AGU25 Exhibit Hall tours, focused on a particular theme, such as sensor type or software vendors.



Image Credit: S.Moysey

Acting Lead: Cian Dawson

Community Science & Public Education Group

Overview: The Community Science and Public Education Group will direct activities that use distributed sensing for non-professional communities, fostering public engagement and education. *Initial planning was coordinated with Professional Development & Training.*