

Call for Papers

Interstellar Research Group

9th Interstellar Symposium

Distant Worlds, Neighboring Opportunities

October 12-15, 2025

AT&T Conference Center, Austin, TX

Contact



https://irg.space



info2025@irg.space



InterstellarResearchGroup





Contents



TOPICS OF THE PROPOSAL

01.	LETTER FROM THE IRG PRESIDENT
02.	LETTER FROM THE ORGANIZING CHAIR
03.	SYMPOSIA IMPACTS
04.	TOPIC AREAS OF INTEREST
05.	9TH INTERSTELLAR SYMPOSIUM
06.	CURRENT PARTNERSHIPS
07-08.	EVENT OVERVIEW
09.	ORGANIZING COMMITTEE
10-11.	CALL FOR PAPERS

Distant Worlds, Neighboring Opportunities

For the 9th Interstellar Symposium, The Interstellar Research Group is proud to partner with the University of Texas at Austin's Center for Planetary Systems Habitability. This is an amazing opportunity to showcase the talent that the state of Texas has to offer the interstellar community and our development goals.

Given our partnership with CPSH, we want to highlight the developments being made toward making off-Earth human habitation possible, but a part of that comes with recognition that our best model for emulation will be the ecosystems and climates found here on Earth. That is why the theme for this event is "Distant Worlds, Neighboring Opportunities."

The theme is emblematic of the concept that though we strive for the stars and the worlds that surround them, reaching that goal will chiefly be borne on hard work achieved on Earth, to benefit the people here too. Learning about the Solar System teaches us things about our own world in return, and the Interstellar Research Group works to bridge the translation of starshot missions to neighborly applications.

Part of the neighborly action that we aim to undertake this symposium is to provide scholarships to attend the symposium, allowing a broader array of attendees to participate in the symposium, that may have found themselves barred from entry before purely on a financial basis in the past. For that effort to be successful we are aiming to raise \$200,000 to fund the travel and symposium registration for up to 100 students.

The students that attend will have the ability to closely interact with senior research professionals from top international institutions, such as Caltech, Max Planck Institute, McGill University, and The University of Alabama at Huntsville. This close interaction is intended to foster professional opportunities for the students at these institutions, like research fellowships or junior faculty roles.

The Interstellar Research Group has long been focused on the distant missions enabled by realistic technologies we know today. The future will always belong to our junior participants, and it is never too soon to advantage more participants in that vision. There's enough room for everyone in space. Let's build that Ladder to the Stars, together. See you in Austin, October 12 – 15, 2025!

Joseph E. Meany Ph.D.,

President

Interstellar Research Group

1969. The only thing I remember from that year is my parents waking me up to watch Neil Armstrong step onto the Moon. That event has shaped my life in a major way. I was already obsessed with the space program and that in turn led me to being an avid reader of science fiction. From this point on each interest fueled the other in a virtuous(?) spiral. These two interests, in turn, led directly to my two careers – scientist and air force officer. About fifteen years ago these paths came together in my research beginning in space exploration, interstellar and SETI issues. I attended my first IRG (then TVIW – Tennessee Valley Interstellar Workshop) in 2016 and was captivated by the atmosphere and stimulated by the discussions, formal and informal. Since then I have attended all but one of the conferences and steadily became more involved.

I believe deeply in the mission of the IRG – to advance humanity to interstellar status. Organisms that stagnate, die. And the same extends to cultures and civilizations. It is essential, despite (or because) of problems here on Earth, that we continue to explore and expand. Far into the future, but perhaps sooner than we realize, Earth will become uninhabitable – if we do not move outward, we end.

What makes this time so exciting for me is that we have the beginnings of the scientific understanding and engineering know-how to realistically work on the myriad of challenges in reaching other solar systems. These very hard problems are what gets scientists, engineers, futurists, science fiction writers and business people excited and motivated.

The IRG 2025 conference, 12-15 October in Austin, Texas will be the next, largest and most engaging conference focused on interstellar advancement. The conference venue is the AT&T Hotel and Conference Center on the University of Texas at Austin campus. Austin is one of the most dynamic, fun and intellectually stimulating cities in the world. The university is a world leader in astronomy and space engineering and has a large engaged student body. Austin is also a space entrepreneurial center with more than a dozen companies from start-ups to multinationals engaged is space. Regionally SpaceX and Blue Origin have R&D/launch facilities in the state. Further supporting this ecosystem, the State of Texas recently launched a \$350 million space business and R&D fund. OF course, just down the road (in Texas terms) is the NASA – Johnson center – the home of US human space exploration.

Come join the exciting work of IRG 2025. Whether you are a professional in the field or an interested amateur, join us for a great multi-day conference of expert talks, social events, public outreach functions (including science fiction, art and topic workshops).

Dr. Ken Wisian, Organizing Chair, 9th Interstellar Symposium Interstellar Research Group



Symposia Impacts

IRG serves as a critical incubator of ideas for the interstellar community.

IRG has hosted eight "main stage" symposia between 2011 and 2023, and two special topic symposia in 2018 and 2024.

Following the success of the 7th Interstellar Symposium in 2021, papers were submitted for consideration in publication within a special issue of Acta Astronautica, published in August 2022.

Papers from the 8th Interstellar Symposium in 2023 are currently in peer review for special issues in Acta Astronautica and JBIS.

With the success of these relationships, we expect similar cooperative agreements to be in place for the upcoming 9th Interstellar Symposium.

- Three-book series of technical monographs published by Elsevier
 - Interstellar Travel: Purpose and Motivations
 - o Interstellar Travel: Propulsion, Life Support, Communications, and the Long Journey
 - Interstellar Travel: After Arrival
- Two Special Issues of Acta Astronautica, featuring papers from the 7th and 8th Interstellar Symposia
- One Special Issue of Journal of the British Interplanetary Society (JBIS)
- Three anthologies, Stellaris, The Ross 248 Project, and Going Interstellar, featuring contributors from IRG Interstellar Symposia published by Baen Books
- Ongoing YouTube archives of symposium presentations, professionally edited and available for free.



Topic Areas of Interest



Physical Sciences

Power, navigation, materials, extraterrestrial resource utilization, breakthrough physics



Engineering

Propulsion, exoplanet terraforming, habitat architecture



Astronomy

Exoplanet
discovery/characterization,
habitability, solar
gravitational focus imaging



Human Factors

Life support, worldships, population genetics, psychology, hibernation, finance



Ethics & Philosophy

Sociology, law governance, astroarchaeology, cultural evolution



Astrobiology

Technosignature/biosignat ure identification, SETI, Fermi Paradox, von Neumann probes

COSMOSPHERE

9th Interstellar Symposium: About The Event



Distant Worlds, Neighboring Opportunities

This theme evokes the fact that while truly interstellar missions remain an aspirational goal, all steps that we take now can have far-reaching effects by coloring our immediate challenges. Just as habitat engineering studies have benefits for improving living in harsh earth environments; studies of culture, law, art, and governance here on earth will have lasting impacts on crewed interstellar missions.

We want to underscore how the breadth of the human experience will determine the success of our expansion to the *Distant Worlds* and stars beyond. *Neighboring Opportunities* reminds us that space is for all.

Current Partnerships



For the 9th Interstellar Symposium, IRG is delighted to partner with The University of Texas at Austin, and their Center for Planetary Systems Habitability as co-hosts.



Furthermore, IRG is proud to continue our collaboration with the International Academy of Astronautics. IAA is committed to tackling groundbreaking challenges in the peaceful exploration and use of space, which strongly overlaps with the mission and ethos of the IRG.



We intend papers from the 9th Interstellar Symposium to be collated and published in another special issue of *Acta Astronautica*, as was the case for the 7th Interstellar Symposium at the University of Arizona and the 8th Interstellar Symposium at McGill University.

Event Overview





Pre-Symposium Seminars

- Events before the symposium
- 4-hour deep dives on focused topics from Subject Matter Experts
- Extra cost to attendees, but comes with the benefit of Continuing Education Credits.



Academic Plenary Lectures

- · Main programming of the IRG Symposia
- Peer-selected presentations on broad topics related to interstellar travel.
- Presenters come from government, industrial, and academic researchers.
- Each presentation is considered for publication in academic journals, collected as Special Issues.
- Each presentation is recorded, professionally edited, and available for researchers to feely promote their work.



Student Poster Session

• Students have the opportunity to present their research.



Sagan Sessions

 Special 90-minute discussion panel on a pre-selected topic for a deep dive.

Event Overview





Public Outreach Night

- Luminaries have topical discussions at levels accessible to the public.
- Free!



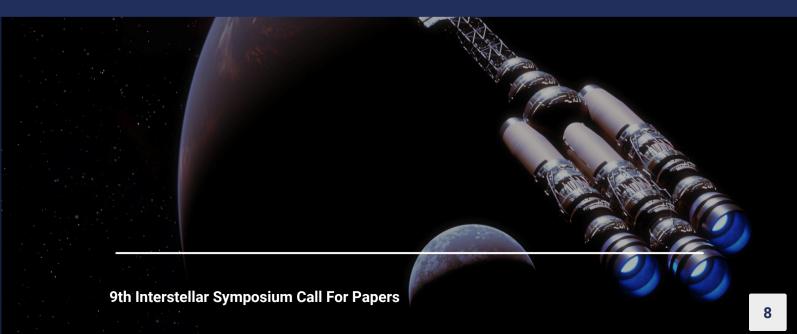
Technical Tours

- Companies and institutions provide facility tours to IRG attendees as a unique attendance benefit.
- Tours offer both informational and networking opportunities for attendees.
- Offers a fun way to "wind down" from the events of the week to understand where the neighboring opportunities are.



Hospitality Suite

- Echoing back to the IRG's founding by a group of science fiction fans, IRG symposia specifically plan for a suite that offers attendees a chance to relax in a social atmosphere that extends the conversations of the day with food and other refreshments.
- In the quieter environment, students have the opportunity to sit with senior attendees for ad hoc mentorship.



9th Interstellar Symposium Organizing Committee





Dr. Ken Wisian
Chair



Dr. Joseph MeanyFundraising



Martha Knowles
Volunteer Support



Les JohnsonProgramming



Michael Birchfield
Publicity



Lauren Randolph Receivables



Important Dates

6/1/2025 Abstract Submission Deadline 7/1/2025 Notification of Abstract Acceptance

Submission Formats

PAPER PRESENTATIONS: 30 minute (including Q&A) talks during the main sessions of the Symposia on any of the topics of interest. Papers must be original work that has not been previously published. Select papers may be submitted for journal publication, such as in *Acta Astronautica* and the *Journal of the British Interplanetary Society* (JBIS).

WORKING TRACKS: Collaborative, small working groups focused around creating organizational roadmaps for the **Interstellar Research Group**.

SEMINARS: 3-hour in-depth presentations on a single subject. Seminars will be held prior to the main programming, with morning and afternoon sessions.

ART EXHIBITION: An exhibition inspired by a quote from Friedrich von Schlegel, "Every art should become science, and every science should become art." will feature art and sculpture from both digital and physical media. Subject of the art piece must feature or be inspired by the Cosmos. Al-induced art is admissible, but must be explicitly stated whether Al was used in the partial or entire creation of the piece.

OTHER SUBMISSIONS: Posters, display models, demonstrations, panel discussions, interviews, and public outreach events are also accepted.

Notice of Video & Archive Use: All symposium events may be captured on video or in still images for use by the organizers and sponsors, in public media. All participants will be asked to complete a Release Form that grants permission for IRG to use this content as described in the release form.



Call For Papers



Abstract Submission Guidelines

SUBMISSION TOPICS: for the Interstellar Symposium must relate to one or more of the many interstellar mission related topics listed on *Page 4* of this document.

PRESENTING AUTHOR(S): Please list ONLY the author(s) who will actually be in attendance and presenting at the conference. (first name, last name, degree –for example, Susan Smith, MD)

ADDITIONAL AUTHORS: List all authors here, including Presenting Author(s) – (first name, last name, degree(s) – for example, Mary Rockford, RN; Susan Smith, MD; John Jones, PhD)

ABBREVIATIONS within the body should be kept to a minimum and must be defined upon first use in the abstract by placing the abbreviation in parentheses after the represented full word or phrase. Proprietary drug names and logos may NOT be used. Non-proprietary (generic) names should be used.

ABSTRACT LENGTH: The entire abstract, (EXCLUDING title, authors, presenting author's institutional affiliation(s), city, state, and text), including any tables or figures should be a maximum of 350 words. It is your responsibility to verify compliance with the length requirement.

ABSTRACT STRUCTURE - abstracts must include the following headings:

- Title: the presentation title
- Subtitle: state whether the abstract is for an oral presentation or poster
- Background: describes the research or initiative context
- Objective: describes the research or initiative objective
- **Methods:** describes research methodology used. For initiatives, describes the target population, program or curricular content, and evaluation method
- Results: summarizes findings in sufficient detail to support the conclusions
- Conclusions: states the conclusions drawn from results, including their applicability.

Submit Abstracts to Registrar@irg.space





Contact Us!

- http://irg.space
- InterstellarResearchGroup
- info2025@irg.space
- Interstellar Research Group
 2221 Peachtree Rd. NE
 Ste D-146
 Atlanta, GA 30309

Interstellar Research Group