ELEVATE Diversity, Equity & Inclusion (DEI) Committee at ASC 24

DEI Committee Goals

❑ Focus on AWARENESS and ACTION in the areas of community outreach, allies and intervention method

❑ Expand on race and ethnicity factors, in addition to gender factors in DEI

❑ Understand and bring awareness to the impact of culture/country of origin on DEI practices in the superconductivity community

ELEVATE Chair Advisor
Ashleigh Francis
HTS R&D Lead
Commonwealth Fusion
Systems, MA USA

ELEVATE Chair
Anna Fox
Electrical Engineer
NIST, CO USA

DEI Committee Chair
Judy Wu
University Distinguished
Professor
University of Kansas, KS, USA

ELEVATE Chair Advisor
Sasha Ishmael
Senior Engineer
HTS Systems Engineering at
VEIR Inc. MA USA

DEI Tutorials for the ASC 24 Conference Cycle

I. **Virtual Abstract Writing Workshop**
Dec '23/Jan '24
Presented by Dr. Peter Lee
Goal – To guide participants towards writing better quality abstracts

II. **Virtual Manuscript Preparation Workshop**
Charlie Sanabria, Commonwealth Fusion
This virtual event will be offered to ASC 2024 attendees who are considering submitting a manuscript to be included in the special issue of the IEEE Transaction for Applied Superconductivity. The workshop will be held several weeks before the ASC 2024 conference covering the technical writing, and formality requirements as stated in the manuscript template, followed by a discussion to allow questions from the audience.

III. **Virtual Manuscript Review Workshop**
Al Zeller, FSU/MSU
This virtual event will be offered to those who are interested in becoming reviewers of the special issue of IEEE Transaction for Applied Superconductivity for ASC 2024. The workshop aims to provide instructions and hands-on experiences in manuscript review and would be particularly attractive to young researchers and can provide valuable experiences for their career development.

IV. **Short Courses**
Classes offered at ASC 2024 will be aimed at instructing attendees on different topics related to applied superconductivity, namely large scale, materials, and electronics applications. They are suitable for undergraduate or graduate students interested in superconducting applications and physicists or engineers working on superconductivity-related fields who wish to broaden their backgrounds.

asef
APPLIED SUPERCONDUCTIVITY
EDUCATIONAL FOUNDATION

ASC 24: Virtual Abstract Writing Workshop

Workshop Instructor: Peter J. Lee

Applied Superconductivity Center, NHMFL, FSU, Tallahassee FL USA

Organizer: Anna Fox

NIST, Quantum Voltage Project, Boulder, CO USA

Course Outline

- Why do we need high-quality abstracts?
- How are abstracts submitted?
- How are abstracts reviewed?
- How is the conference program developed?
  - Orals vs. Posters
- What is the program committee looking for in an abstract?
- What makes for compelling abstract? Tools and Tips for Non-Native (and Native) English Speakers

Why do *we* need high-quality abstracts?

- Abstracts are needed to provide the information required to build a high-quality scientific program
  - Can sessions be built around the abstracts?
    - Should it be an invited talk or poster?
    - What presentation platform is best?

- They serve as an important pre-qualification for submission to the conference issue of IEEE Trans. Applied Superconductivity
  - Is the subject matter relevant to applied superconductivity
  - Is this work of high enough quality?
    - (note that acceptance for presentation does not guarantee publication)

- This is an international conference so reviewed abstract acceptance is an important tool for potential attendees to obtain travel visas and funding for travel to the conference

- Conference attendees need to know that they can expect high quality of presentations

# Why do *you* need a high-quality abstract?

- Your abstract will be published as part of the program
  - Does it reflect the quality of your research?
  - Does it reflect the contributions of your colleagues and collaborators?
  - Will other attendees be able to find it by searching the program for key words?
- The abstract will help the program committee determine the best session and platform for your presentation
- Other conference attendees will use your abstract to determine whether to visit your session
- You may need a reviewed abstract acceptance to obtain a travel visa and/or funding for travel

How are abstracts submitted?

- Abstract call (general information): https://www.appliedsuperconductivity.org/asc2024/call-for-abstracts/

- Abstract submission:

  https://asc2024.abstractcentral.com/

  - You may need to disable your pop-up blocker for this site: asc2024.abstractcentral.com
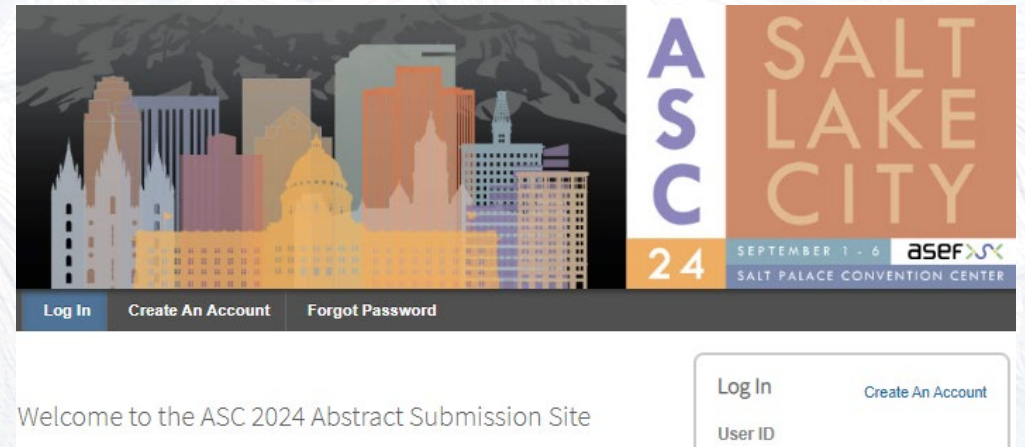
⚠ Disable Pop Up Blocker
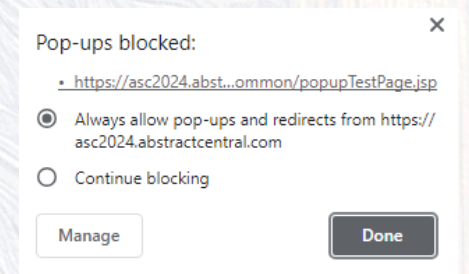
Setting up your account

- You will need a new account for **ASC 24** (at least that was my experience)
  - I was also missing all the information I had entered for ASC 22

- Note: A new User ID was generated for me

Your Account is Incomplete

You will now be taken to the Modify Account section where you must update your account to use this site.

- General Information: Primary Institution is missing.
- General Information: You have not answered the detail "Contact Information Confirmation".
- Contact Information: Primary Country / Region is missing.
- Contact Information: Primary Zip is missing.
- Contact Information: Primary City is missing.
- Contact Information: Primary Address Line 1 is missing.
- Contact Information: Primary Phone 1 is missing.
- Privacy: Privacy acknowledgment is a required field

Ok

Check Submission Categories

- Look at the submission categories ahead of time so you know what to submit under:

  https://www.appliedsupercond uctivity.org/asc2024/wp-content/uploads/sites/5/2023/12/ASC_2024_Abstract_Sub mission_Categories.pdf

What topics are acceptable?

1. Applications of superconductors in Quantum Systems – Quantum Computing / Communications / Sensing. The most promising modalities for implementing the relatively new field of quantum information involve superconducting devices, superconducting qubits, and/or superconducting readout systems. ASC invites submissions related to Quantum Systems that include superconductors. Device, design, packaging, system related topics are included and solicited.

2. Advances in the science of superconductors relevant to applications. Abstracts describing basic materials, films, or artificial structures should discuss properties interesting for applications, forms used in applications such as elementary conductors or simple circuits, or structural or compositional aspects that potentially lead to use in a device. Theoretical content should address topics relevant to applications, operations, or behavior of practical systems. Experimental studies, test methods, and data should relate to aspects of superconductivity important for applications in some way.

3. Advances in superconducting technology. Abstracts may describe concepts, design, modelling, manufacturing or fabrication, and operation or implementation of superconducting devices or components. Extensions of conventional technologies by the use of superconductivity should emphasize the role of superconductivity in the device or component. Abstracts may describe non-superconducting technologies that are required for the use of superconductors, such as insulation, provided that the primary discussion is focused on applied superconductivity.

4. Integration of superconducting devices and components in systems. Abstracts may discuss sub-systems or full systems comprised of components such as cables, magnets, detectors, circuits, and so on. Discussions may include components and processes that support superconducting devices, such as cryogenic systems supporting superconducting magnets. Studies of power devices, transportation systems, electricity transmission, energy storage, and other systems that use superconducting components should emphasize the role of superconductivity or the particular aspects of superconductivity important to the system or application. Cryogenics, non-superconducting materials at cryogenic temperature, power supplies, power electronics, and other ancillary topics may be considered *provided that* the connection to applied superconductivity is clear. Also, abstracts may describe facilities to verify operation of components, report system tests, or describe the status of superconducting systems and projects using superconducting components.
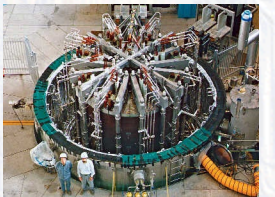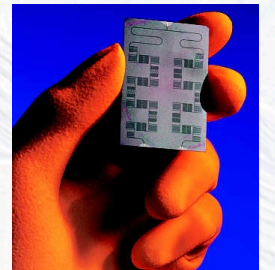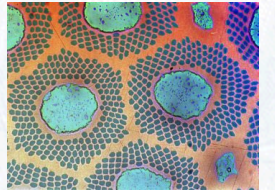
Visa Applicants: Invitation Letters

- Letters of invitation for visa application will be sent out after the Program Meeting in February 2024
  - Once the Program Committee has accepted the abstract the invitation can be sent out. This should allow over 6 months for the visa application.

Visa Resources

- https://www.appliedsuperconductivity.org/asc2024/travel-visa/#Visa

Resources for determining if you need a visa and if so, what type, can be found on the ASC 24 travel page

Visa Requirements

Conference participants should familiarize themselves with visa requirements well in advance of the conferences. The 2024 Applied Superconductivity Conference (ASC'22) organizers encourage you to apply for your visa as early as possible, at least 3 to 4 months prior to this conference.

Please note: Some consulates may have backlogs in scheduling visa interviews. **Visa Wait Times for Interview Appointments and Processing by City are available here.**

ASC'24 CANNOT INTERVENE with U.S. Embassies abroad or the State Department on behalf of any participant. However, if you need a personal letter of invitation to attend the Conference, please contact **Centennial Conferences** and provide the following information:

Full Name
Complete Mailing Address (to include affiliation, department, street address, city, state, postal code (all as applicable)
Abstract Control ID(s) or Presentation ID

The letter we provide you will reflect your status as known to us at the time (abstract accepted and a place in the program assigned; paid registration received, etc.). The letter does not imply financial support from the conference. Your letter will be **EMAILED** to you. A hard copy will be faxed and mailed to you via regular airmail only if requested. Any fees for sending letters via express mail must be paid for by the requester.

Please note that letters of invitation can only be sent to presenting authors of accepted abstracts or registered and paid attendees and exhibitors.

The majority of oversees attendees will be eligible for the "Visa Waiver Program". Details can be found **here**.

IMPORTANT WEBSITES

- **International Visitors Office**
- **Visa Waiver Program**
- **Visa Wizard**
- **Visa FAQ**
- **U.S. Customs and Border Protection**
- **U.S. Visa Policy**
- **US Embassies**
- **Office of Biometric Identity Management**
- **Centers for Disease Control and Prevention – Travelers' Health**
- **World Health Organization – Travel and Health**

PROBLEMS
If any problems are encountered in the visa applications or in the admission process, please submit your report to the International Visitors Office **by completing the questionnaire** on their website. To help the International Visitors Office to identify you as a participant, please be sure to include the 2024 Applied Superconductivity Conference (ASC'24) in the "Purpose of Visit" field on the questionnaire. The International Visitors Office can inquire at the Department of State about the status of visa applications that have been pending for more than 21 days.

DISCLAIMER
Please note that this information is given in good faith but that the regulations may change, and the only authoritative sources of information are the U.S. Government websites.

The Rules

- Title and Abstract Content/Body: 3000 characters

- Acknowledgment: 300 characters

Submitted abstracts will be reviewed according to the following criteria:

- Does the abstract contain enough information?

- Is the abstract about applied superconductivity?

- Is the abstract scientifically meaningful or otherwise descriptive of a substantial development in the ASC community?

- Does the abstract align with one of the submission categories?

- *All authors designated as speaker/presenting author on the submitted abstract must register for the conference and be present in Salt Lake City.*

Abstract changes can be made until the original submission deadline (January 17, 2024).

Presentations are either oral or poster. The Program Committee reserves the right to change the type of presentation from that preferred by the author to accommodate limitations on meeting space and other constraints.

The rules:

- Title + Abstract Content/Body: Maximum of 3000 characters

- Acknowledgment: Maximum of 300 characters

- *Your title and subject matter must stay the same for your presentation*

Update count by clicking on refresh icon

Step 1: Title/Body

ID: 4047387

Deadline:	Contact Name:	Total Characters	Full Instructions ☐
Jan 17, 2024 11:59 PM EST	Peter Lee	417 out of 3,000 ⟳	

* = Required Fields

* Title (Please enter in sentence case; do not include the list of authors!)   108 CHARACTERS

[toolbar icons]

Make your title descriptive enough that it can be distinguished from other presentations in the same session

* Abstract ⓘ   307 CHARACTERS

[toolbar icons]

You can paste from Microsoft Word and retain some formatting such as subscripts and superscripts.
You can also pasge in some common characters: α ß, γ, δ, ε, ®, ° *etc.* If you use character codes in Word (not symbol font).
Some less-used characters do not paste successfully (*i.e.* h, ∇) but you will be warned.

Step Incomplete   ✕

Please **Close** this window and correct the following errors or click **Save & Continue** to return to this step at a later time:

- You have an invalid character in the "Abstract" ("ccessfully (i.e. h, ∇) but you will be w").
- You have an invalid character in the "Abstract" (" successfully (i.e. h, ∇) but you will b").

‹ Close   Save & Continue ›

Write your title and abstract in your preferred word processor first

- Writing your abstract in your word processor provides you with full access to spell checking and basic grammar tools or add-on grammar tools like Grammarly

- Character-code characters (*not* symbol font) can be copy-and-pasted directly
  - If a character does not work, you will be warned:

Select Special Character

Step Incomplete

Please **Close** this window and correct the following errors or click **Save & Continue** to return to this step at a later time:

- You have an invalid character in the "Abstract" ("ccessfully (i.e. *h*, ∇) but you will be w").
- You have an invalid character in the "Abstract" (" successfully (i.e. *h*, ∇) but you will b").

< Close   **Save & Continue >**
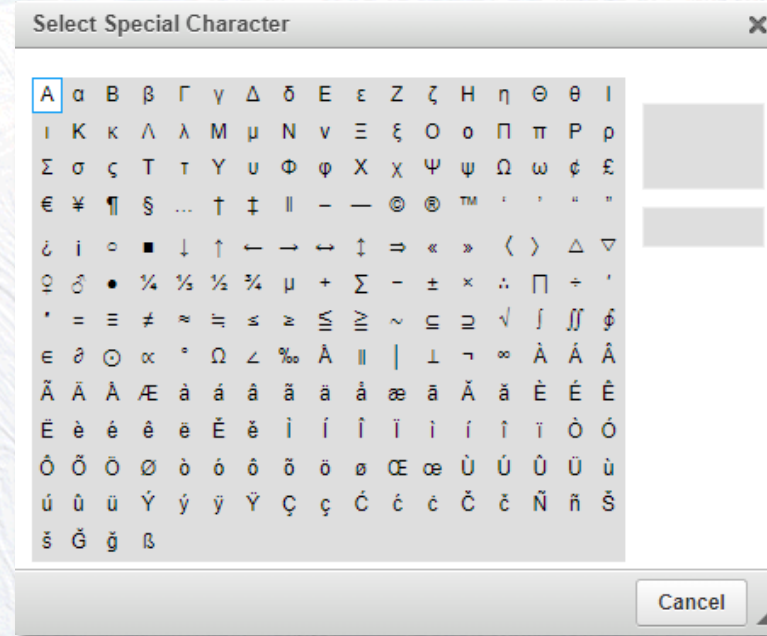
Characters that you can paste are also those shown in the symbol drop down on the submission page
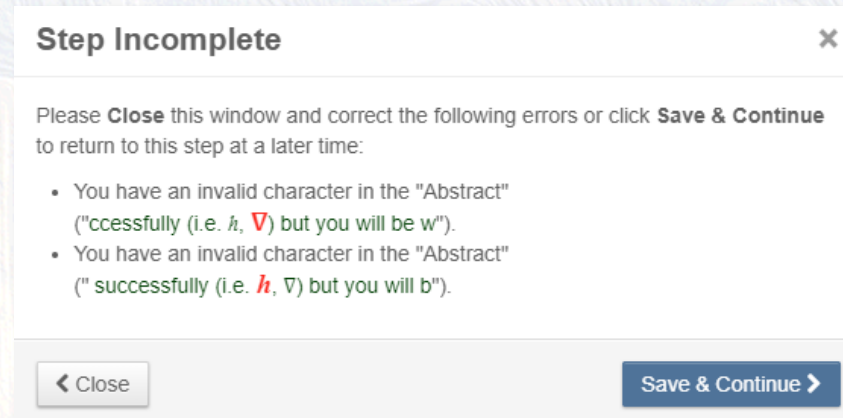
New character option: Optional File Upload

- ASC 24 wishes to accommodate authors for whom written English does not properly capture spelling or pronunciation of names and affiliations. Here, authors may also upload a PDF file containing the list of authors and institutions written in a native font. The file should be created with all fonts embedded. This file will not be reviewed by the program committee, and all information is the responsibility of the author. This file with native font will be available for viewing via the online Itinerary planner once the technical program is finalized.

- Note: Step 1 of the abstract submission must be completed first

PDF

Select File

FILE NAME	UPLOAD
📎 1. Select File	⬆ 2. Upload Selected File

You can save during your session and return later

- Save (at the bottom of the web page) your draft so you do not lose any edits.
- You can return to your draft abstract later to complete it
- Your editable drafts can be found at the bottom of the submission page

Save   Save & Continue >

Leave warning

Are you sure?   ✕

Your abstract has not been submitted. Are you sure you want to leave your abstract in a draft status?

< No, Return to my draft   Yes, Leave this as draft >
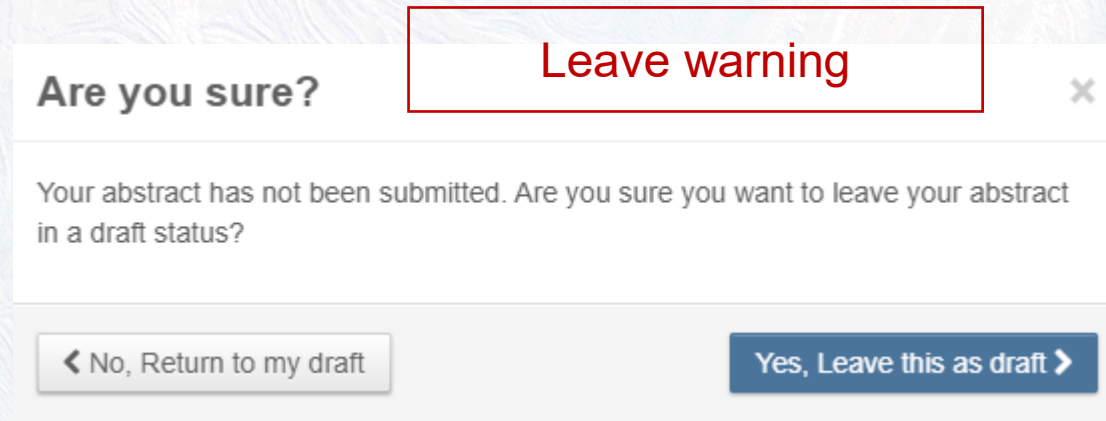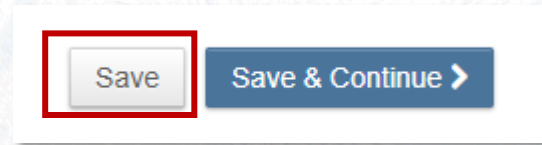
Drafts

ACTION	TITLE	ID	MODIFIED	DEADLINE	TYPE	STATUS
Select ...	Make your title descriptive enough that it can be distinguished from other presentations in the same session	4047387	Dec 6, 2023 4:24 PM EST	Jan 17, 2024 11:59 PM EST	Abstract Submission	Draft

Oral vs Poster

- Oral presentation slots are always limited; if you select Oral presentation, you will be asked to justify this choice:

Oral Presentation Type Preference

If you selected Oral for your presentation type preference, please explain why below.

Orals vs Posters

Oral Presentation

- Pros
  - Visibility/Perceived Prestige
  - Invited talks more common than invited posters

- Cons
  - Very limited interaction with attendees – no time for any in-depth conversation

Poster Presentation

- Pros
  - Excellent interaction with attendees (especially for in-person conferences)

- Cons
  - Transporting physical poster (they can be printed locally)
  - Seeing other posters in the session is more difficult (workarounds are typically built into the program)

Your selection has no impact on abstract acceptance

Letter of Invitation

- If you need a letter of invitation for visa application or institutional needs make sure you check yes here:

Abstract Changes & Withdrawals

- Abstracts may be modified until the deadline using the abstract submission site unless the submission has already been reviewed by the Program Committee

- If your abstract has already been reviewed and after the submission deadline, abstract content changes, i.e., modification of title or body, will be sent to the Program Committee for approval. Corrections, i.e., spelling or grammar, or author changes such as designation of different presenting author, changes to affiliations, changes to names, etc., can be completed without referral to the Program Committee. In either case, please contact Centennial Conferences by e-mail and specify whether you need a change or a correction in the e-mail subject line along with the Control ID

- Except for presenting author changes, modifications will be accepted until August 1, 2024

Abstract Withdrawals

- Abstracts can be withdrawn via the abstract submission site through the abstract submission deadline

- Withdrawal requests after closing of the submission site must be sent to Centennial Conferences by e-mail. Please be sure to include your Control ID

How are abstracts reviewed 1: Online

- All abstracts are reviewed online before the Program Meeting
  - Abstracts are assigned to the relevant experts in the Program Committee
  - All abstracts receive at least two reviews
  - Reviewers in the online process make recommendations but final approval and sorting is performed at the Program Meeting
  - Reviewers will make recommendations for invited papers, orals, posters and rejections. They will also suggest possible focused sessions based on the papers that they review
    - If the abstract has been submitted in the wrong category, they will make a recommendation to move it to the correct category

How are abstracts reviewed 2: Program Meeting

- At the Program Meeting all the abstracts will be sorted into sessions

- A 1-page printout of each abstract is provided includes the rating and comments of the online reviews

- Final rejection decisions will be made at the Program Meeting

ASC 2020 Program Meeting: Materials Committee meeting room ready for action

ASC 24   ELEVATE Virtual Abstract Writing Workshop

Program Meeting Goals

- Build a functioning and exciting conference program
- Subdivide coherently the >1500 reviewed abstracts into
  - Oral / Poster sessions spread over 5 conference days
- Arrange sessions to reduce overlap between topics
- Create sessions:
  - Titles, suggest moderators

Materials

Electronics

Large Scale

Abstracts with any reject scores

Typical breakdown of sessions

- 2020 target example
- Note that Large Scale has a lower target % or oral slots – this is to avoid too many overlapping oral sessions

	Parallel Sessions	Total Slots		% Oral
Electronics	3	201	399	50.4
Large Scale	4	268	825	32.5
Materials	2	134	295	45.4

There are always more requests for oral presentations than there are slots available

If you select "Poster" as your presentation the committee will *not* put your presentation in an oral session unless they check with your first

If you select "Oral" the committee may put your presentation in an oral or poster session

Rooms will have different capacities

Tampa Convention Center example
(original in-person ASC 2020)

Plenary   Ballroom B-C   2200
(splitting room for two orals)
Oral 1   Ballroom A   700
Oral 2   Ballroom B   1100
Oral 3   Ballroom C   1100
Oral 4   Ballroom D   700
Oral 5   Mtg Rm 24/25   360
Oral 6   Mtg Rm 22/23   360
Oral 7   Mtg Rm 20/21   360
Oral 8   Mtg Rm 18/19   360
Oral 9   Mtg Rm 16/17   360
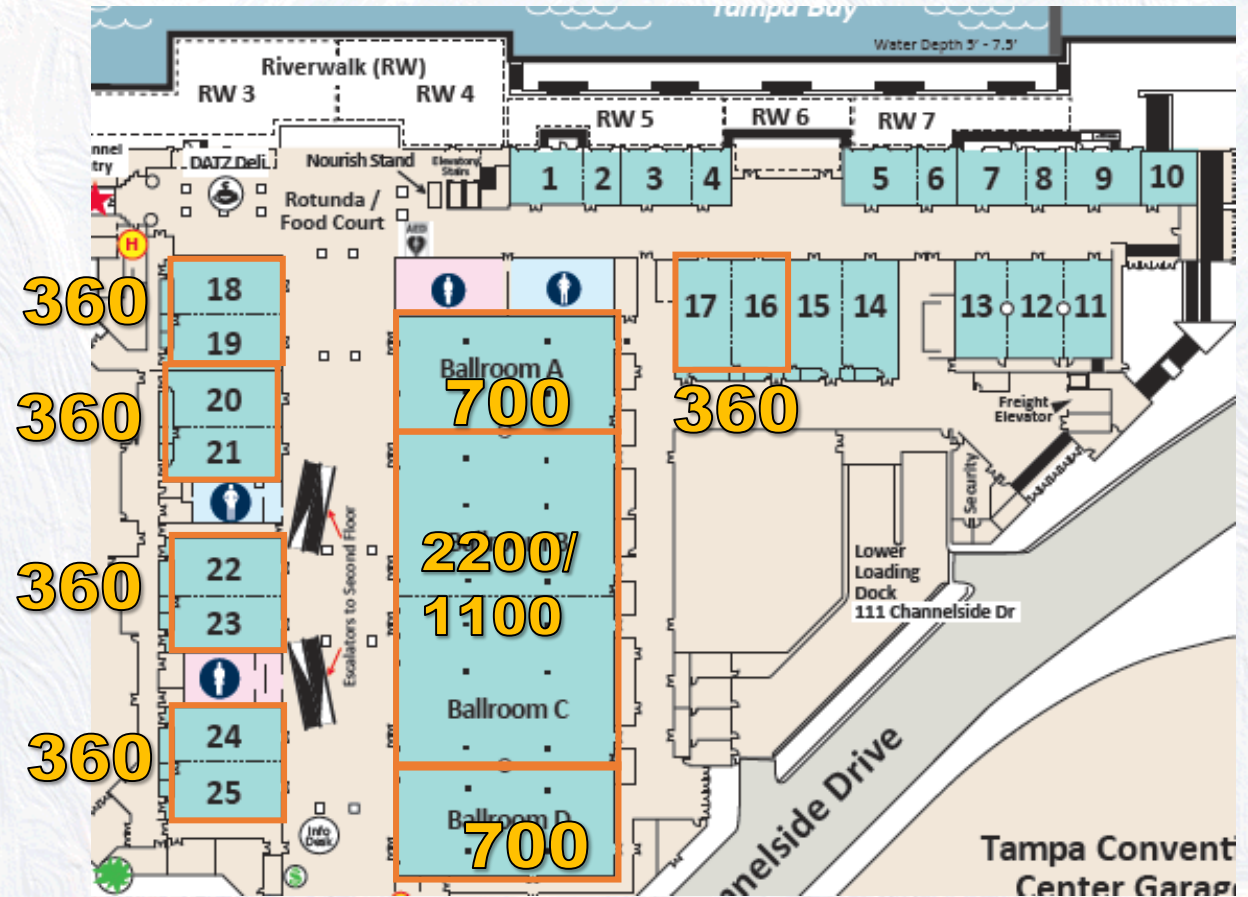
Oral sessions will also be organized according to the expected number of session attendees.

What is the program committee looking for in an abstract?

- **Relevance** to applied superconductivity
- Sufficient **information** to be able to place the presentation with similar papers
- Evidence of **quality**
  - Does the abstract make technical sense?
  - Are interesting results or a useful theoretical advance going to be presented?
  - What is the likely impact on the field?

What makes for compelling abstract?

- In 3000* characters there should be ample room to:
  - Explain why this work is important for advancing applied superconductivity
  - Be interesting to the attendees of the conference
  - Contain significant results or applications that can be understood within the context of previous work

  *Pre-2014, when full program books were printed, the limits used to be 1500-2000 characters, this range is a good target

- Avoid:
  - Making generalization and conclusions that this work cannot support
  - Unnecessary details that do not aid understanding the work
  - Repetition (make sure it is well-organized)

A Model Abstract

- If you address each of these 6 goals, you should be good to go!

Note this example is only ~1600 characters

Title: 1. Make your title descriptive enough that it can be distinguished from other presentations in the same session

Abstract: 2. Start your abstract with an introduction that explains the relevance and importance of this work to applied superconductivity (the most common reason for an abstract being rejected is that it is not within the scope of the conference). **3**. Make sure that it is well written so that the organizers have confidence in the likely quality of your conference presentation. Make good use of tools such as Grammarly to help improve the clarity and readability of the abstract. It should be clear from this section what the major goals of this work are. **4**. Follow the introduction with *brief* experimental details that cover the materials and techniques being used in sufficient detail that the program committee can judge the quality of the work being carried out (for theoretical work this would be more context related). For experiments, it is important to follow this with results even if the experiment is ongoing (without demonstrating that important results have already been obtained limits the basis on which the abstract can be accepted and there will be the concern that the presentation may be withdrawn later if no new results have been obtained, requiring late changes to the advertised program). **5**. End your abstract with conclusions drawn from these results. Make sure that you explain their significance in a way that demonstrates your understanding of the topic. **6**. Finally make sure to check your abstract for errors (remember that your abstract will be published online). Have your co-authors check the abstract before submission; if you have no co-authors have someone else proof-read your abstract.

A bad abstract

Improved wire performance by advanced processing

What kind of wire is this? Attendees working on similar material may not find you abstract in the program if you do not include key search terms

Is this a scientific research article or a sales pitch? What is the application?

More detail required.

We have invented a new process for improving wire performance. High quality results were obtained for a variety of wires. We tested the wires using a Quantum Design PPMS VersaCryoLab II cryogen-free cryocooler-based material characterization platform with a temperature range of 50 – 400K. The wire microstructures were examined using a VK-X9000 will 3D-laser microstructure that automatically scan and measure samples with a 3000 pixel frame resolution. The wires showed better results in all cases than conventional processing, had a higher yield and longer piece length while having a reasonable cost. The new technique will produce better results in all circumstances.

Unnecessary experimental detail that looks like it was copied from a brochure or manual

Actual values necessary to support this statement

What kind of conventional processing?

Weasel words will invite skepticism

Overly broad statement that has not been presented with supporting data

# Writing resources and tips from non-native English speakers at FSU

- A popular resource for assisting writing was [Grammarly](#)
  - Free and paid premium version available
  - Can integrate into a browser, MS Word, MS PowerPoint, etc.
  - Can combine [Google Translate](#) for the translation, and then use Grammarly to correct
  - Will rate the "friendliness" of your text, along with clarity
  - Useful for native English speakers as well to discern passive vs. active language

- If not sure about a word, look up synonyms of that word to see if you are using the right word
  - Especially for words that have multiple usages/similar sounds (ex. Break (break apart), break (rest), brake (stop your car), etc.)
  - Be aware this can also depend on your knowledge of the meaning of the synonyms

- If unsure about a phrase, step away for 30+ mins and come back to review it later—it may become clearer with fresh eyes

- Ask a friend/colleague who is a native English speaker to review

ELEVATE: Paper writing

- **Virtual Manuscript Preparation Workshop** **featuring Charlie Sanabria**. This virtual event will be offered to ASC 2024 attendees who are considering submitting a manuscript to be included in the special issue of the *IEEE Transaction for Applied Superconductivity*. The workshop will be held several weeks before the ASC 2024 conference covering the technical writing, and formality requirements as stated in the manuscript template, followed by a discussion to allow questions from the audience.
  - Event date and time to be announced shortly.

- **Virtual Manuscript Review Workshop** **featuring Al Zeller**. This virtual event will be offered to those who are interested in becoming reviewers of the special issue of *IEEE Transaction for Applied Superconductivity* for ASC 2024. The workshop aims to provide instructions and hands-on experiences in manuscript review and would be particularly attractive to young researchers and can provide valuable experiences for their career development.
  - Event date and time to be announced shortly

Wrap-up
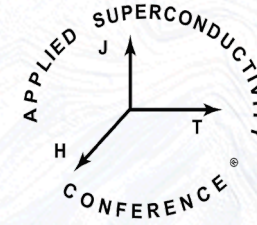
- Any questions?

- Let us know what else you would like to see in the future

- Please fill out the feedback form that you will receive after the workshop, it will be important for improving the next version

Thanks to Abiola Temidayo Oloye, Ashleigh Francis, Sasha Ishmael, and Al Zeller for their suggestions and contributions

Conference Management: Centennial Conferences