

Virtual Workshop Resources

An overview of software, best practices, and logistics for successful virtual events at ICERM.

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Virtual Collaboration Tools

ICERM's IT staff supports a wide variety of virtual collaboration tools, software, and platforms. We encourage organizers to contact IT staff before your workshop in order to assure we are ready to support your virtual events.

Zoom Video Conferencing

ICERM uses Zoom as our primary video conferencing service. Workshop events normally use Zoom Meetings, but we occasionally use Zoom's add-on Zoom Webinars feature for more formal virtual events like public lectures. A short comparison of Meetings and Webinars is below. See the Zoom Introduction for more details and a full technical comparison.

Zoom Virtual Meetings

Zoom Meetings provides meetings with video, audio and screen sharing for up to 300 real time participants.

- ICERM uses Zoom Meetings for most workshop talks, discussion sessions, working group meetings, and virtual social events such as coffee break sessions and workshop receptions.
- Zoom Meetings allow all participants to control their own microphones, cameras, and screen sharing so they can see, chat, and collaborate with each other.
- For officially scheduled workshop events, ICERM's IT staff creates the Zoom sessions and shares the links with all participants. A member of ICERM's IT staff also monitors the Zoom session to provide any technical support should the need arise.
- During long-term programs, ICERM can support a limited number of recurring working group meetings on Zoom.
- **All attendees, speakers, and session chairs are encouraged to review our Zoom Meetings Guide.**

Zoom Webinar

Zoom Webinar is an add-on to the Zoom Meetings service that allows more formal webinar broadcasting and live-streaming outside of Zoom.

- ICERM sometimes uses Webinar for more formal events such as virtual public lectures.

- Webinar attendees will be in view-only mode but can still raise their hand to request microphone access or use chat to ask questions.
- Most ICERM Webinars are live-streamed on the icerm.brown.edu website via Panopto.

Zoom Technical Needs/Constraints

- An ICERM IT staff member will be on all official ICERM Zoom workshop events to provide assistance and technical support.

Other Video Conferencing Platforms

Gather

[Gather](#) is a web-based virtual space that combines a 2D virtual space with video chat, allowing users to move around the virtual space and interact with others in small groups.

- Users in Gather are represented as a 2D game-style avatar within a virtual world. The standard Gather world has a virtual conference center along with an outdoor area.
- Users can move their avatars around the space and congregate in groups to have group discussions, allowing more free-form small group discussions than Zoom Breakout rooms.
- ICERM has been using Gather for recent coffee breaks and other social events.

Technical Needs/Constraints

- Organizers should let ICERM IT staff know if they would like to use Gather for any social events at least a week before their event.
- An ICERM staff member will join most Gather sessions to answer any participant questions.

Email/Text Chat Platforms

Slack

[Slack](#) is an app and web based communication platform designed loosely around the classic Internet Relay Chat (IRC) model.

- Slack divides chat up into “channels” for topic-based discussion.
- Slack's app is available for all major platforms. A browser-based client is also available.
- Free Slack workspaces retain the last 10,000 messages for a searchable history and also provide 1-to-1 video calling.
- Paid Slack workspaces can support group video calling up to 15 people.

Technical Needs/Constraints

- Program organizers who wish to use a Slack workspace for their program should request Slack setup from ICERM IT staff at least two weeks before the start of an event.
- For group-based events, ICERM staff can pre-create and populate channels on Slack if we are provided a list of groups and participants one week before the start of the program.

Zulip

[Zulip](#) is an open-source web-based communication platform similar to Slack.

- Zulip divides chat up into “streams” (similar to Slack's channels). Streams also have topics to further organize the discussion.
- Zulip also has apps for all major platforms in addition to a browser-based web client.
- For ICERM users, Zulip has several benefits over a free Slack workspace:

1. Zulip has better Latex integration than Slack.
2. Zulip topics provide an additional level of organization within streams, which can be beneficial during virtual workshops.
3. Zulip retains the full discussion history. It is hidden for free tiers, but can be viewed by upgrading to the paid tier.

Technical Needs/Constraints

- Program organizers who wish to use a Zulip workspace for their program should request Zulip setup from ICERM IT staff at least two weeks before the start of the program.
- For group-based events, ICERM staff can pre-create and populate groups on Zulip if we are provided a list of groups and participants one week before the start of the program.

Listserv

Long-term programs (Semester Programs and Summer@ICERM) are provided with a program mailing list via Brown's central listserv. All participants are members of the list and can use it to send email announcements to the other members of their program. Listserv is not available for short-term programs.

Web-based Collaboration

Overleaf

[Overleaf](#) is an online collaborative LaTeX editor.

- Overleaf provides an online collaborative Google Docs-style editor for creating LaTeX documents. Several collaborators can work together on the same document making edits and suggestions/comments.
- Overleaf is available to all postdocs and Brown university students via Shibboleth login.
- ICERM can also support premium Overleaf projects for other workshop groups on a case-by-case basis. Organizers should contact IT staff to discuss this option.

Technical Needs/Constraints

- Organizers who wish to use Overleaf for their workshop should discuss this with ICERM IT staff at least two weeks before the workshop.

JupyterHub

[JupyterHub](#) is a collaborative, online, multi-user version of the popular Jupyter Notebook software.

- Brown CCV hosts a [JupyterHub server](#) that can be made available on request to specific working groups.

Technical Needs/Constraints

- Advance notice is required for this service. Organizers should contact IT staff to discuss this option at least two weeks before the start of the workshop.

ICERM's Best Practices for Virtual Events

What follows is a list of best practices for hosting virtual events based on lessons ICERM has learned from our experiences. These points may seem obvious to some, and indeed, they follow ICERM's general operating philosophy. However, we list them here in the interest of furthering the broader discussion of facilitating continued research in a virtual environment.

Keep It Simple

This is perhaps the most important principle, and it overlaps a lot of areas. Remember that not everyone has the same level of technical knowledge and confidence. When choosing a conferencing application, make sure the interfaces, at least for the basic options, are intuitive and user friendly. Application client downloads should be easy to access. Installs and configurations should require minimal effort on the part of the user.

We also strongly recommend, where possible, choosing tools that are platform agnostic, widely accessible, and require minimal hardware. Any one of these could hinder a user's ability to participate.

The logistics of participation should be simple as well. For example When hosting multiple sessions within a single event, a shared link for all sessions is recommended if possible to reduce confusion.

Where security is concerned, consider carefully how much you really need, and don't secure beyond that. Registrations and passwords add complexity to the user experience and may make more hassle than some are willing to endure to participate. We realize this won't be a popular idea among security minded IT people. The balance between security and usability needs to be adjusted carefully, especially when the goal is broad accessibility for a large set of users with unknown or poorly defined operating parameters.

Practice

Ideally, the support staff should be experts with the tools being used. Anyone with an active role, such as session chairs, panelists, speakers, should be given an opportunity to familiarize themselves with additional functions they may need to use before the actual event. For example, our team provides speakers with an opportunity to schedule practice time in order to try out screen

sharing functions and the like the week before an event. Unusual transitions or special functionality should be mapped out and tested ahead of time.

Organization

Session chairs have proven to be a vital part of the logistics of our virtual events, particularly when running events that have multiple talks in a session. Chair duties are similar to in-person workshops, including speaker introductions, moderating the audience for questions, and keeping the session generally on schedule. Ideal chairs will have some knowledge of the scientific topics being discussed.

Support

ICERM has a team member actively monitoring, but not participating in all virtual events. This person is primarily there to help if there are technical issues, but also serves as another check on chat logs to make sure there isn't an overly large backlog of unanswered questions, and to assist with things like speaker transitions and breakout rooms. Generally this person serves as "meeting host" from a technical standpoint, and has full control of the application used for the event.

Communicate

This is perhaps as important as simplicity. Communicating early and often allows clear expectations to be set for everyone involved. Open dialogs as early as possible with anyone in an active role. Make sure they understand what it is they're expected to do and when. Ensure that everyone understands what your tools will and won't do. Provide links to documentation and how-to guides as well as any necessary software downloads.

Be Flexible

Virtual events introduce a wide variety of factors that are outside the control of the host. Internet connections drop or are bogged down. Pets and people make surprise appearances. Hardware breaks or is suddenly inaccessible. Have a contingency plan, such as a stand in speaker, or a backup QA session. We also recommend having multiple means of contact for speakers and panelists (i.e. email and phone) in case they are unexpectedly absent.

Virtual Workshop Session Formats

Standard Lecture Talk

A standard lecture talk by a presenter delivered via Zoom. Usually scheduled for 45 minutes plus 15 minutes Q&A.

Technical Needs/Constraints

- Software: Zoom Meeting.
- Sessions can be recorded and posted afterwards to our video archive via Panopto.
- One IT staff will be the Zoom host and provide technical support.
- A session chair should be named to introduce the speaker and moderate questions. The session chair will also be made co-host of the Zoom meeting.
- All sessions should have at least one Zoom host and two co-hosts in case of connectivity issues. An organizer normally will serve as this backup co-host and session chair.

Lightning Talks

A series of short 5 to 10 minute “lightning” talks hosted back-to-back, usually presented by early-career researchers and graduate students. Each presenter is typically limited to two slides.

Technical Needs/Constraints

- Software: Zoom Meeting.
- Sessions are not normally recorded or archived.
- Slides must be sent to ICERM program staff no later than 24 hours before the lightning session.
- ICERM staff stacks all slides together into a single file to ease transitions between the lightning speakers. The ICERM staff member functioning as Zoom host will screen share the slides and advance them on cue from each presenter.
- One IT staff will be the Zoom host and provide technical support.
- A session chair should be named to introduce each lightning presenter, moderate questions, and keep the session on time. The session chair will also be made co-host of

the Zoom meeting.

- All sessions should have at least one Zoom host and two co-hosts in case of connectivity issues. An organizer normally will serve as this backup co-host and session chair.

Panel Discussion

A discussion and question/answer session led by several panelists. Panel discussions sometimes have one or two moderators as well.

Technical Needs/Constraints

- Software: Zoom Meeting.
- Sessions can be recorded and posted afterwards to our video archive via Panopto.
- One IT staff will be the Zoom host and provide technical support.
- A session chair should be named to introduce the speaker and moderate questions. The session chair will also be made co-host of the Zoom meeting. In a panel discussion, this role is usually filled by the moderator(s).
- All sessions should have at least one Zoom host and two co-hosts in case of connectivity issues. In a panel discussion session, this could be the second moderator or one of the panelists.

Poster Gallery

A virtual poster gallery on the event web page.

Technical Needs/Constraints

- ICERM staff needs all posters by 9am three business days before the workshop.
- Posters should be submitted as a PDF.

“Make Your Own Coffee” Hour

An informal social discussion session for workshop attendees to meet and mingle with each other virtually.

Technical Needs/Constraints

- Zoom Meeting or spatial.chat
- When using Zoom meetings, breakout rooms can be used to facilitate smaller social groups.
- When using Zoom, one ICERM staff member will be the Zoom host to provide technical support and facilitate breakout rooms.
- These can be scheduled as a stand-alone session or between other sessions, but we find stand-alone sessions have better attendance.

Problem Sessions and Discussion Sessions

Session for attendees to gather either in the full group or smaller breakout groups and discuss topics or problems related to the research area of the workshop.

Technical Needs/Constraints

- Software: Zoom Meeting.
- Zoom breakout rooms can be used to split the large group into smaller groups to better accommodate participation from all attendees.
- Sessions are not normally recorded or archived.
- One IT staff will be the Zoom host and provide technical support.
- A session chair or discussion leader should be named moderate the session. The session chair will also be made co-host of the Zoom meeting.
- All sessions should have at least one Zoom host and two co-hosts in case of connectivity issues. An organizer normally will serve as this backup co-host and session chair.

Project/Group Work Sessions

Small working group sessions during project-based or group-based workshops. These sessions are usually ongoing throughout the week of the workshop.

Technical Needs/Constraints

- These sessions are typically organized and hosted by group leaders.
- Due to constraints with ICERM's Zoom licensing, group leaders are normally asked to host the video conferencing rooms for their individual groups if possible.
- ICERM can support Zoom rooms for a small number of groups if nobody in a group has access to video conferencing software.

Zoom Video Conferencing

Zoom is the official video conferencing service of ICERM and Brown University. ICERM uses both Zoom Meetings and Zoom Webinar for our events.

Overview of Zoom at ICERM

[Zoom](#) is the official video conferencing service of ICERM and Brown University. ICERM uses both Zoom Meetings and Zoom Webinar for our events.

Downloading Zoom

- The Zoom Meetings client is available for macOS, Windows, and Linux from the [Zoom website](#).
- Zoom is available for iOS on the App Store and Android on the Google Play Store.

General Zoom Info & Tips

- Zoom has apps for macOS, Windows, and Linux available for download on the Zoom.us website (<https://zoom.us/download/>). iOS and Android apps are also available on the App Store/Google Play Store. **Zoom will work best if you keep it up to date to the latest version, available through the download link.**
- Please join the Zoom sessions with your full name.
- We recommend using headphones to reduce the chance of echo, feedback, or other audio issues.
- Zoom can be bandwidth and resource-intensive for your computer. For best performance, we recommend a wired connection, if possible, and running as few other concurrent applications as possible while participating.
- We encourage users to add a profile photo to their Zoom account so that it will show up when you are speaking without a camera on.
- Zoom has a great user guide and knowledge base available at <https://support.zoom.us/>.

FAQs & Zoom Support Pages

Zoom's full user guide and knowledgebase available at <https://support.zoom.us/>. Some commonly used Zoom features at ICERM along with direct links to their support pages on Zoom's website are below.

- [How do I raise my hand?](#) - Meeting controls for attendees
- [How Do I Share My Screen?](#)
- [Managing Participants in a Webinar](#) - for organizers and session chairs
- [Sharing a Whiteboard](#) - Using Zoom's shared whiteboard feature, which can be useful for collaborative work in groups.

Meetings vs. Webinars

Zoom Virtual Meetings

[Zoom Meetings](#) provides meetings with video, audio and screen sharing for up to 300 real time participants.

- ICERM uses Zoom Meetings for most workshop talks, discussion sessions, working group meetings, and virtual social events such as coffee break sessions and workshop receptions.
- Zoom Meetings allow all participants to control their own microphones, cameras, and screen sharing so they can see, chat, and collaborate with each other.
- For officially scheduled workshop events, ICERM's IT staff creates the Zoom sessions and shares the links with all participants. A member of ICERM's IT staff also monitors the Zoom session to provide any technical support should the need arise.
- During long-term programs, ICERM can support a limited number of recurring working group meetings on Zoom.
- **All attendees, speakers, and session chairs are encouraged to review our [Zoom Meetings Guide](#).**

Zoom Webinar

[Zoom Webinar](#) is an add-on to the Zoom Meetings service that allows more formal webinar broadcasting and live-streaming outside of Zoom.

- ICERM sometimes uses Webinar for more formal events such as virtual public lectures.
- Webinar attendees will be in view-only mode but can still raise their hand to request microphone access or use chat to ask questions.
- Most ICERM Webinars are live-streamed on the icerm.brown.edu website via Panopto.

Technical Comparison for Organizers

Meetings

- Zoom Meetings allow all participants to see, chat, and collaborate with each other.
- All participants can control their own microphones, cameras, and screen sharing by default.
- These sessions can be recorded but not live streamed.

Webinars

- During a webinar, participants are put into two categories: “panelists” and “attendees”.
- Panelists can use video, audio, and screen sharing just like in a normal Zoom meeting.
- Attendees have a “view-only” experience of the panel, but can also use audio with permission from the Webinar hosts for asking questions during talks.
- Attendees in Webinars can not see the participant list during sessions.
- Webinar also includes Q&A and Polls features.
- Q&A is a specific chat area for attendees to ask questions to panelists.
- Polls allow panelists and webinar hosts to poll the attendees to vote on questions/topics during the webinar.

Zoom Meetings Guide

This guide contains ICERM's general guidelines and tips for workshop talks, classes, working groups, and meetings via Zoom Meetings. We recommend all Zoom participants read and follow these guidelines to ensure the best experience for all participants.

General Zoom Info & Tips

- Zoom has apps for macOS, Windows, and Linux available for download on the Zoom.us website (<https://zoom.us/download/>). iOS and Android apps are also available on the App Store/Google Play Store. **Zoom will work best if you keep it up to date to the latest version, available through the download link.**
- Please join the Zoom sessions with your full name.
- We recommend using headphones to reduce the chance of echo, feedback, or other audio issues.
- Zoom can be bandwidth and resource-intensive for your computer. For best performance, we recommend a wired connection, if possible, and running as few other concurrent applications as possible while participating.
- We encourage users to add a profile photo to their Zoom account so that it will show up when you are speaking without a camera on.
- Zoom has a great user guide and knowledge base available at <https://support.zoom.us/>.

Zoom Workshops at ICERM

- Workshop talks presented via Zoom are generally recorded and posted after the talk on ICERM's [video archive](#).
- Each workshop session will have a session chair. Session chairs introduce the speaker and moderate questions from the audience.
- Zoom Meetings with many participants can be very bandwidth intensive. We ask all attendees other than the presenters turn off their camera during talks to help conserve bandwidth.
- All attendees should keep their microphones muted when not talking to avoid any potential issues.

Info for Speakers

- We strongly recommend using headphones to reduce the chance of echo, feedback, or other audio issues.
- You can use Zoom's Screen Sharing to share slides or other materials during your presentation. See the Screen Sharing section below for more information.
- We need your permission in order to publish your talk on our video archive. Please contact ICERM's program staff for any questions with speaker release forms.
- If you'd like to do a trial run before your talk, please email support@icerm.brown.edu and we can schedule a test session.
- We've provided some ICERM branded backgrounds for Zoom if you would like to use them in your talk:

<https://www.dropbox.com/sh/2qjh3oga2o5fzn5/AAC6ofVAAfPBXn6hntts3fb5a?dl=0>. To change your Zoom background: (on the browser) Click your profile picture, then click on Settings. (on the desktop app) Go to zoom, Preferences. In the left menu bar, click on the Virtual Background tab (if you don't see this tab, log in to the Zoom website, go to Settings and toggle on Virtual Background). In the Virtual Background tab, select one of Zoom's defaults or upload the image by clicking the + icon to upload from your computer (after downloading the image from the Dropbox link above).

Info for Organizers and Session Chairs

- Session chairs for the virtual talks will introduce the speaker at the beginning of their talk and assist with moderating questions from the audience.
- Chairs will be made a co-host upon joining the Zoom meeting. This will allow you to control the microphones of the audience.
- At the beginning of each recorded session, please wait for ICERM IT staff to give the go-ahead before introducing the speaker to start their talk. This will ensure we have started recording.
- Controls for managing Zoom participants are available from the Participants tab in Zoom.
- Participants can use Zoom's "raise hand" feature or the chat window to ask a question or indicate they would like to speak. Session chairs should monitor for questions and notify the speaker when applicable.

Screen Sharing

- Presenters can use Zoom's Screen Sharing to share slides or other materials during your presentation. To start screen sharing, click the green "Share Screen" button in the bottom toolbar of the meeting room, then follow the prompts to get it started.

- Zoom's guide on Screen Sharing is available here for more info. We encourage you to review this document before your presentation. <https://support.zoom.us/hc/en-us/articles/201362153-How-Do-I-Share-My-Screen->
- When sharing full-screen slides, make sure to select your entire desktop in Zoom's screen sharing window. If you select just the slides window, Zoom will not display properly when you go to full screen.
- Some operating systems, including macOS Catalina, require specifically allowing Screen Sharing in System Preferences.

Lightning Talks

- During Lightning Talk sessions, ICERM staff concatenates all presenters' slides into a single slide deck.
- ICERM staff will screen share the slides to streamline transitions between each lighting talk presenter.
- Staff will advance to the next slide on cue from the presenter.

Zoom Webinars Guide

This guide contains ICERM's general guidelines and tips for formal ICERM virtual talks delivered via Zoom Webinar. We ask that all participants, speakers, and session chairs read and follow these guidelines to ensure the best experience for all participants.

Zoom has apps for macOS, Windows, and Linux available for download on the Zoom.us website (<https://zoom.us/download/>). iOS and Android apps are also available on the App Store/Google Play Store. Once you have the app installed on your device, you can join the virtual talk session by clicking the Zoom link in the email you received from ICERM staff.

For All Participants

- Please join the Zoom sessions with your full name. (Reimbursements and payments for workshop participants/speakers are limited to funded individuals that participate/speak in this virtual event.)
- Please keep your microphone muted. If you have a question, please use the “raise hand” feature or chat to notify the presenter. The presenter or co-host will un-mute your mic when they are ready for your question.
- Zoom can be bandwidth and resource-intensive for your computer. For best performance, we recommend a wired connection, if possible, and running as few other concurrent applications as possible while participating.
- We encourage users to add a profile photo to their Zoom account so that it will show up when you are speaking.
- Zoom has a great user guide and knowledgebase available at <https://support.zoom.us/>.
- Most Zoom sessions will be published after the end of the conference on our video archive.

For Speakers

- Speakers will be made a panelist after joining the Zoom webinar. This will allow video and screen sharing.
- We strongly recommend using headphones to reduce the chance of echo, feedback, or other audio issues.

- You can use Zoom's Screen Sharing to share slides or other materials during your presentation. To start screen sharing, click the green “Share Screen” button in the bottom toolbar of the meeting room, then follow the prompts to get it started.
- Zoom's guide on Screen Sharing is available here for more info. We encourage you to review this document before your presentation. <https://support.zoom.us/hc/en-us/articles/201362153-How-Do-I-Share-My-Screen->
- When sharing full-screen slides, make sure to select your entire desktop in Zoom’s screen sharing window. If you select just the slides window, Zoom will get confused when you go to full screen.
- Some operating systems, including macOS Catalina, require specifically allowing Screen Sharing in System Preferences.
- We need your permission in order to publish your talk on our video archive. Please contact ICERM’s program staff for any questions with speaker release forms.
- If you’d like to do a trial run before your talk, please email support@icerm.brown.edu and we can schedule a test session.

For Session Chairs

- Session chairs for the virtual talks will introduce the speaker at the beginning of their talk and assist with moderating questions from the audience.
- Chairs will be made a panelist and co-host upon joining the Zoom webinar. This will allow you to control the microphones of the audience.
- At the beginning of each session, please wait for ICERM IT staff to give the go-ahead before introducing the speaker to start their talk. This will ensure we have started recording and live-streaming.
- Participants will use Zoom’s “raise hand” feature to signal when they have a question or would like to speak. When the speaker is ready for the question, the chair can enable the “Allow Talking” for the participant, allowing them to un-mute their microphone to ask their question. When the discussion has finished, please re-mute the participant’s microphone. These controls are available from the Participants tab in Zoom.
- We encourage session chairs to review Zoom's user guide on managing participants in a webinar before your session. <https://support.zoom.us/hc/en-us/articles/115004834466-Managing-Participants-in-Webinar>