

2020 AAAS Annual Meeting

Envisioning Tomorrow's Earth

February 13–16 • Seattle, WA

Washington State Convention Center

Sheraton Grand Seattle Hotel

Grand Hyatt Seattle

186th Meeting of the
American Association for the
Advancement of Science



Time and location of events are subject to change.
Please refer to the online program and mobile app
for the most up-to-date information.

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Updated January 24, 2020



Steven Chu

AAAS President and
Program Chair

William R. Kenan, Jr.,
Professor of Physics
Stanford University



Ana Mari Cauce

President
University of Washington

Dear Colleagues:

Scientific and technological research have been invaluable in developing ways of improving life on Earth. The 2020 AAAS Annual Meeting theme, *Envisioning Tomorrow's Earth*, considers how efforts and advances in science and technology can respond to the new challenges faced by society. Thank you for joining us at the 186th Meeting of the American Association for the Advancement of Science and welcome to the city of Seattle. This meeting is the culmination of the efforts of a diverse range of individuals in a myriad of disciplines. We are grateful to the presenters, exhibitors, the AAAS Scientific Program Committee, the AAAS Sections, and to those who spent a considerable amount of time evaluating the many excellent ideas and proposals for this year's sessions and events.

The AAAS Annual Meeting is the premier event at which you can network with future collaborators from different disciplines, and we hope that our program inspires dynamic conversations about the future of the scientific endeavor.

Attendee Logistics

Registrants are required to wear their badges at all times when attending the Annual Meeting. Anyone without a valid meeting badge may be denied entry.

Do you need the full schedule?

Download the app here: aaas.org/app

Social Media

Hashtag:

#AAASmtg

Twitter:

@AAASmeetings

Live-tweeting and sharing of AAAS Annual Meeting content on social media is welcomed. If a meeting speaker does not wish to have his/her research shared by Twitter, Facebook, or other social networks, he/she should make an announcement before and during his/her presentation. Courtesy in communications is encouraged by AAAS. Speakers should be aware that most AAAS Annual Meeting events are open to the news media, and some are open to the public. AAAS strongly encourages compliance with speaker requests regarding social-media sharing but cannot guarantee it. Concerns and questions about this policy should be directed to AAAS Meetings staff at meetings@aaas.org.

Video- or audio-taping of any session or parts thereof for commercial purposes are not permitted without prior approval from the speakers, organizers, and AAAS.

Locations

Attendee Registration and Information

**Washington State Convention Center,
4th Floor Atrium Lobby**

Thursday

February 13

7:30AM–6:30PM

Friday–Sunday

February 14–16

7:30AM–5:30PM

Speaker Ready Room

For speakers only

Washington State Convention Center, 618

Thursday

February 13

11:00AM–5:30PM

Friday–Saturday

February 14–15

7:00AM–5:00PM

Sunday

February 16

7:00AM–3:30PM

Expo Hall

Check app for event schedule

Washington State Convention Center, 4B

Thursday

February 13

6:30PM–8:00PM

Friday

February 14

9:30AM–2:00PM
3:00PM–5:00PM

Saturday–Sunday

February 15–16

9:30AM–5:00PM

Safe Space

AAAS is committed to providing a safe environment for all participants at the AAAS Annual Meeting. If an individual experiences or witnesses harassment, AAAS offers a Safe Space to meet confidentially with professional advocates trained in offering individuals information, emotional support, and assistance in finding resources and deciding next steps, including filing a formal complaint with the AAAS Office of Meetings and Special Events. Individuals do not have to file a complaint to access the services of these advocates. Advocates are also available for those seeking advice on how to help a friend or colleague

General Information

who may be the victim of harassment. These advocates can be found at:

Washington State Convention Center, 310

Friday–Sunday

February 14–16

8:00AM–5:00PM

For immediate emergencies that require police or medical response, or if at any time you feel unsafe, contact venue security or call 9-1-1.

Newsroom Registration

For newsroom registrants only

Washington State Convention Center, 203

Thursday

February 13

7:00AM–5:00PM

Friday–Sunday

February 14–16

7:30AM–5:00PM

Family Science Days

Sheraton Grand, 2nd Floor, Grand Ballroom

Saturday–Sunday

February 15–16

11:00AM–4:00PM

Meeting Practices and Policies

AAAS is committed to providing a safe and productive meeting environment that fosters open dialogue and the exchange of scientific ideas, promotes equal opportunities and treatment for all participants, and is free of harassment and discrimination. All participants are expected to treat others with respect and consideration, follow venue rules, and alert staff or security of any dangerous situations or anyone in distress. Speakers are expected to uphold standards of scientific integrity and professional ethics. AAAS recognizes that there are areas of science that are

controversial. The AAAS Annual Meeting can serve as an effective forum to consider and debate science-relevant viewpoints in an orderly, respectful, and fair manner. The policies herein apply to all attendees, speakers, exhibitors, staff, contractors, volunteers, and guests at the Annual Meeting and related events.

Harassment

Harassment includes speech or behavior that is not welcome or is personally offensive, whether it is based on ethnicity, gender, religion, age, body size, disability, veteran status, marital status, sexual orientation, gender identity, or any other reason not related to scientific merit. It includes stalking, unnecessary touching, and unwelcome attention. Behavior that is acceptable to one person may not be acceptable to another, so use discretion to be sure that respect is communicated. Harassment intended in a joking manner still constitutes unacceptable behavior. Retaliation for reporting harassment is also a violation of this policy, as is reporting an incident in bad faith.

AAAS is committed to supporting a productive working environment for everyone at the meeting. If an individual experiences or witnesses harassment, they should contact AAAS Meetings staff at meetings@aaas.org or (202) 326–6450, or use a venue phone and ask for security if they feel unsafe. A Safe Space staffed with advocates is provided for those who want to explore options, next steps, and assistance filling official reports. All complaints will be treated seriously and responded to promptly. After investigating, AAAS will consult with the individual filing the complaint prior to taking any action.

AAAS reserves the right to remove an individual from the Annual Meeting without warning or refund, prohibit attendance at future AAAS meetings, and notify the individual's employer.

Conflict of Interest

AAAS requires clear disclosures from all presenters at its Annual Meeting regarding any financial holdings, funding sources, or affiliations that might raise

General Information

questions of bias or be perceived to have potentially influenced presentation content. AAAS expects that all Annual Meeting speakers, organizers, and moderators are committed to full, forthright, and transparent disclosure of any potential conflicts of interest.

When in doubt, presenters are asked to disclose any concerns or questions by contacting AAAS Meetings staff at meetings@aaas.org. Significant disclosures may be made public, as appropriate on a case by case basis, within the AAAS Annual Meeting program.

No Smoking or Vaping

On December 30, 1971, the AAAS Council adopted a motion requesting that persons in attendance refrain from smoking at Council meetings and scientific and public sessions. We ask that all persons who attend the meeting comply with this ruling.

Meeting Development

The symposia, seminars, and lectures of the AAAS Annual Meeting are developed through a peer-review selection process overseen by the AAAS Annual Meeting Program Committee. Peer reviewers are asked to examine proposed symposium topics for scientific significance, timeliness, balance, and clarity of organization. This review is based on a description of the proposed session and does not include a technical examination of individual presentations. For more information on how the program is developed, visit meetings.aaas.org/program.

Disclaimers

Abstracts and synopses of material presented at the AAAS Annual Meeting or published in this volume reflect the individual views of the author and not necessarily those of the AAAS, its Council, Board of Directors, officers, or the views of the institutions with which the authors are affiliated.

Presentation of ideas, products, or publications at the AAAS Annual Meeting or the reporting of them

in resulting news accounts does not constitute endorsement by AAAS.

Abstracts are submitted by the authors and AAAS is not responsible for the content contained in abstracts. All questions regarding them should be directed to the authors.

Attendees at the meeting may be audiotaped, videotaped, or photographed by AAAS, and their images may be used in promotional or other AAAS materials.

Coffee and seating in session rooms is available on a first-come, first-served basis.

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Plenary Sessions

PLENARY SESSIONS

THURSDAY, FEBRUARY 13

AAAS President's Address



Steven Chu

Stanford University

5:00PM–6:30PM

Washington State Convention Center, 4A

Presented by:



FRIDAY, FEBRUARY 14



Bill Gates

Bill & Melinda Gates Foundation

2:00PM–3:00PM

Washington State Convention Center, 4A

The Second Antibiotic Era



Maryn McKenna

Journalist and author

5:15PM–6:30PM

Washington State Convention Center, 4A

Presented by:



European Union

SATURDAY, FEBRUARY 15

The Social Life of DNA and the Need for a New Bioethics



Alondra Nelson

Institute for Advanced Study/
Social Science Research Council

5:15PM–6:30PM

Washington State Convention Center, 4A

SUNDAY, FEBRUARY 16

Develop for Quantum Impact



Krysta Svore

Microsoft Corporation

5:15PM–6:30PM

Washington State Convention Center, 4A

Topical Sessions

TOPICAL SESSIONS

SATURDAY, FEBRUARY 15

Variation is the Norm: Darwin's Population and the Science of Emotion



JOHN P. MCGOVERN LECTURE IN
THE BEHAVIORAL SCIENCES

Lisa Feldman Barrett

Northeastern University

NOON–1:00PM

Washington State Convention Center
615–616

AI Advances and Aspirations



Eric Horvitz

Microsoft Research

NOON–1:00PM

Washington State Convention Center
6C

Space Domain Prediction and Awareness



Moriba Jah

University of Texas at Austin

NOON–1:00PM

Washington State Convention Center
6A

Baby Brains and our Neuro-Futures



Patricia Kuhl

University of Washington

NOON–1:00PM

Washington State Convention Center
603

Seas the Day: Science Driving Ocean and Climate Solutions



The Honorable Jane Lubchenco

Oregon State University

NOON–1:00PM

Washington State Convention Center
6B

Beyond Complacency: Renewing America's Endless Frontier



Diane L. Souvaine

National Science Board

NOON–1:00PM

Washington State Convention Center
619–620

SUNDAY, FEBRUARY 16

Geoengineering and our Climate Future



David Keith

Harvard University

NOON–1:00PM

Washington State Convention Center
6B

Transgender Children



Kristina Olson

University of Washington

NOON–1:00PM

Washington State Convention Center
6A

SUNDAY, FEBRUARY 16

Quantum Cloud Computing



Elham Kashafi
University of Edinburgh

NOON–1:00PM
Washington State Convention Center
6C

The Indigenous/Science Project: Collaborative Practice as Witnessing



SARTON MEMORIAL LECTURE IN THE
HISTORY AND PHILOSOPHY OF SCIENCE

Alison Wylie
University of British Columbia

NOON–1:00PM
Washington State Convention Center
603

The Milestones for the 2020 Annual Meeting celebrate events that have increased access to and advances in the scientific endeavor, bringing discussion of scientific topics into everyday life.



19th Amendment

In August 1920, Congress ratified the 19th Amendment. The legal validation for women's voting rights has resulted, directly or indirectly, in the great advances women and other underrepresented groups have made in all spheres of public and private life.

Town Hall: 100 Years of the 19th Amendment: A Discussion on Progress and Challenges

Washington State Convention Center, 6E
Saturday, February 15
1:30PM–3:00PM

SPEAKERS

Jane Junn, University of Southern California
Michael Latner, California Polytechnic State University
Arti Garg, Engineers & Scientists Acting Locally

MODERATOR

Gretchen Goldman, 500 Women Scientists

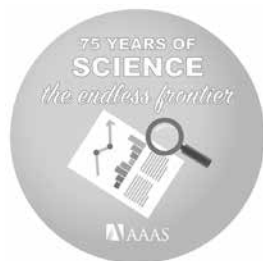
DISCUSSANT

Alejandra Tres, Readysetvote.org

ORGANIZER

Gretchen Goldman, 500 Women Scientists

Download the Annual Meeting app for the most up-to-date information about the meeting program:
aaas.org/app



Science—The Endless Frontier Report

In 1945, engineer Vannevar Bush created this extensive report for then-president Franklin D. Roosevelt. It provided many justifications for the value of the scientific endeavor and the ways it can support U.S. policy, and has had global and wide-ranging impact in government funding for the sciences in the years since its publication.

Topical Lecture: Diane L. Souvaine: Beyond Complacency: Renewing America's Endless Frontier

Washington State Convention Center, 619–620

Saturday, February 15

NOON–1:00PM



Earth Day

In 1970, Senator Gaylord Nelson of Wisconsin established the first Earth Day, an occasion to raise awareness about environmental concerns for individuals from all walks of life. In doing so, he began a national conversation about how best to protect America's natural resources in the years to come.

Town Hall: Talking About and Acting on Climate Locally

Washington State Convention Center, 6E

Saturday, February 15

10:00AM–11:30AM

SPEAKERS

Burke Hales, Oregon State University

Margaret Redsteer, University of Washington, Bothell

MODERATOR

Jessica Hellmann, University of Minnesota

ORGANIZERS

Elana Kimbrell, AAAS Center for Public Engagement with Science and Technology

Emily Cloyd, AAAS Center for Public Engagement with Science and Technology

Town Hall: The Economics of Climate Change

Washington State Convention Center, 6E

Saturday, February 15

3:30PM–5:00PM

SPEAKERS

HRH Princess Sumaya bint El Hassan, Royal Scientific Society of Jordan

Solomon Hsiang, University of California, Berkeley

Frances C. Moore, University of California, Davis

MODERATOR

Leonardo Martinez-Diaz, World Resources Institute

ORGANIZER

Ashira Beutler-Greene, American Association for the Advancement of Science

Wednesday, February 12

9:00AM–4:00PM BUSINESS MEETINGS

**Committee on Opportunities in Science
2020 Meeting**
Sheraton Grand, Cedar B
By invitation only

1:00PM–2:30PM LOCAL SCIENCE TOURS

**Behind the Scenes at the Burke
Museum: A Tour of Biology Research
and Collection Spaces**
Burke Museum of Natural History
and Culture
Pre-registration required

1:00PM–5:00PM SPECIAL SESSIONS

**Mini-Catalyzing Advocacy in Science
and Engineering (CASE) Workshop**
Sheraton Grand, Redwood AB
Pre-registration required

2:00PM–4:00PM LOCAL SCIENCE TOURS

Exploring the Bellevue Wetlands
Mercer Slough Environmental
Education Center
Pre-registration required

7:00PM–9:00PM SPECIAL EVENTS

Film screening: *Secrets of the Universe*
Pacific Science Center
Pre-registration required

Thursday, February 14

9:00AM–10:30AM SEMINARS

**Communicating Science: Engaging with
the Media on Science-Society Topics**
Washington State Convention Center, 6B
Pre-registration required

9:30AM–4:00PM BUSINESS MEETINGS

**Responsible Research and Innovation
Networked Globally (RRING)—
A Glocal Workshop**
Sheraton Grand, Metropolitan Ballroom B

11:00AM–12:30PM SEMINARS

**Communicating Science: Building
Community for Inclusive Public
Engagement with Science**
Washington State Convention Center, 6B
Pre-registration required

1:00PM–2:00PM SPECIAL SESSIONS

**Engaging Scientists and Engineers in
Policy (ESEP) Discussion**
Washington State Convention Center, 6B
Pre-registration required

2:00PM–3:00PM LOCAL SCIENCE TOURS

Laboratory Tours at the Allen Institute
Allen Institute
Pre-registration required

2:30PM–4:00PM SEMINARS

**Communicating Science: Afternoon
Breakout Sessions**
Washington State Convention Center, 6B
Pre-registration required

4:00PM–5:00PM SPECIAL EVENTS

**AAAS Leshner Fellows
Announcement Reception**
Sheraton Grand, Redwood A
By invitation only

5:00PM–6:30PM PLENARY SESSIONS

Steven Chu: President's Address
Washington State Convention Center,
Plenary Hall 4A
Presented by:



6:30PM–8:00PM SPECIAL EVENTS

Welcome to Seattle Reception
Washington State Convention Center,
Expo
Presented by:



Friday, February 15

6:30AM–8:00AM BUSINESS MEETINGS

**General Meeting of the Section
Leadership**
Grand Hyatt, Princessa Ballroom 1
Open to all Section Officers

8:00AM–9:30AM SCIENTIFIC SESSIONS

An Aging World: Pitfalls and Promise
Washington State Convention Center, 603

**Bioinformatics and AI: Innovative
Approaches to Research and Data
Storage**
Washington State Convention Center, 606

**Carbon Economy: Considerations for
the United States and Pacific Rim**
Washington State Convention Center, 6C

**Climate Change Solutions: Capturing
Greenhouse Gas Emissions in Land**
Washington State Convention Center, 613

**Herbicide Resistance: Catalyzing
Transdisciplinary Science**
Washington State Convention Center, 6A

**Learning Through Citizen Science:
Enhancing Opportunities by Design**
Washington State Convention Center, 609

**Mentorship: Toward a Culture of
Effectiveness and Inclusivity**
Washington State Convention Center, 611

**Molecular Probes and Imaging:
Exploring the Inner Universe**
Washington State Convention Center,
615–616

**New Approaches to Fairness in
Automated Decision Making**
Washington State Convention Center,
619–620

**Science During Crisis: Best Practices,
Research Needs, and Policy Priorities**
Washington State Convention Center, 612

**Science is Political, Not Partisan: Best
Practices for Science Policy Advocates**
Washington State Convention Center, 604

**The Biological Engineering Revolution:
Strategies for a Sustainable Scale-up**
Washington State Convention Center, 607

**The Drug Abuse Crisis: Key Findings
From Three Landmark Studies**
Washington State Convention Center, 6B

8:00AM–9:30AM SCREENING ROOM
Rise of the Mammals
 Washington State Convention Center, 617
 Presented by University of Washington

8:00AM–9:30AM BUSINESS MEETINGS
AERA/CGS Open Science Listening Session 1
 Sheraton Grand, Greenwood

8:00AM–NOON BUSINESS MEETINGS
Committee on Science, Engineering, and Public Policy (COSEPP) Meeting: Day 2
 Sheraton Grand, Ballard
By invitation only

8:00AM–5:00PM BUSINESS MEETINGS
AAAS Committee on Scientific Freedom and Responsibility (CSFR)
 Sheraton Grand, Medina
By invitation only

9:00AM–NOON BUSINESS MEETINGS
Mathematics Section Business Meeting
 Sheraton Grand, Cedar AB
Open to all registrants

Pharmaceutical Sciences Section Business Meeting
 Sheraton Grand, Juniper
Open to all registrants

9:30AM–12:30PM BUSINESS MEETINGS
Engineering Section Business Meeting
 Sheraton Grand, Aspen
Open to all registrants

10:00AM–11:30AM SCIENTIFIC SESSIONS
Convergent Science: Combating Africa's Wildlife Crisis
 Washington State Convention Center, 607

Earth-sized Planets Orbiting Other Stars: How To Find and Study Them
 Washington State Convention Center, 603

Gerrymandering and Mathematics: Redistricting the Nation
 Washington State Convention Center, 6C

Green Toxicology
 Washington State Convention Center, 619–620

Learning from Protactile DeafBlind Communities: Toward a More Tactile Future
 Washington State Convention Center, 606

Living Donors: How Volunteers Give Tissues and Time to Advance Science
 Washington State Convention Center, 609

Local Solutions to Global Challenges: A Community-based Approach to Innovation
 Washington State Convention Center, 611

Particle Therapy: Perspectives from Physics, Medicine, and Economics
 Washington State Convention Center, 604

Sustainable Agriculture: Launching Standardized Microbial Ecosystems
 Washington State Convention Center, 6A

The Future of Earth's Climate: A World of Extremes
 Washington State Convention Center, 6B

The Reef Crisis in Earth's Future
 Washington State Convention Center, 615–616

Transforming Higher Education Culture: Coordinating Reform with Agents of Change
 Washington State Convention Center, 612

Unique Solutions for Renewable Energy, Marine Energy Storage, and Water Usage
Washington State Convention Center, 613

10:00AM–11:30AM TOWN HALLS

Balancing Science with Concerns About National Security
Washington State Convention Center, 6E

10:00AM–11:30AM SCREENING ROOM

The Bit Player
Washington State Convention Center, 617
Presented by University of Washington

10:00AM–11:30AM SPECIAL SESSIONS

Breaking a Big Science Story through Film: Rise of the Mammals
Washington State Convention Center, 608

10:00AM–11:30AM CAREER WORKSHOPS

Communications, Engagement and Advocacy: The Role of Science in Decision-making
Washington State Convention Center, 401

Envisioning the Global Professional: Uncovering Career Opportunities Worldwide
Washington State Convention Center, 4C-3

Learning to Manage and Mentor: Skills for Long-term Success in Science
Washington State Convention Center, 4C-4

10:00AM–NOON BUSINESS MEETINGS

AAAS Meeting of Affiliates
Grand Hyatt, Princessa Ballroom 2
Open to all affiliate representatives

Social, Economic, and Political Sciences Section Business Meeting
Sheraton Grand, Kirkland
Open to all registrants

10:45AM–2:00PM BUSINESS MEETINGS

NAAS Delegates Assembly and Forum
Sheraton Grand, Issaquah AB

NOON–1:30PM SCIENTIFIC SESSIONS

Beethoven at 250 and the Science of Music: Emotion, Memory, and Health
Washington State Convention Center, 6B

Diversity, Equity, and Inclusion: Recommendations from Physics and Astronomy
Washington State Convention Center, 604

Food of the Future: Developing New Sustainable, and Healthy Sources
Washington State Convention Center, 6C

Human Embryo Research Revisited: Scientific, Ethical, Legal, and Social Issues
Washington State Convention Center, 613

Natural History Collections and Biodiversity's Future
Washington State Convention Center, 606

Ocean Outbreaks on a Changing Planet
Washington State Convention Center, 6A

Oral Cancer: Using the HPV Vaccine for Prevention
Washington State Convention Center, 607

Responding to Climate Change: Science, Religion, and Cultural Practices
Washington State Convention Center, 611

Strengthening Sustainability Programs and Curricula in Higher Education

Washington State Convention Center, 612

The Neuroscience of Addiction: Policy Considerations

Washington State Convention Center, 615–616

Urban Resilience and Emergency Response: The Climate Change Perspective

Washington State Convention Center, 603

Using Data and AI to Disrupt Sex Trafficking

Washington State Convention Center, 609

Wildfire Smoke and Public Health: The Science at the Nexus

Washington State Convention Center, 619–620

NOON–1:30PM TOWN HALLS

Bringing Scientific Evidence to Meet Local Policy Challenges

Washington State Convention Center, 6E

NOON–1:30PM SCREENING ROOM

Moonlight Sonata: Deafness in Three Movements

Washington State Convention Center, 617
Presented by University of Washington

NOON–1:30PM SPECIAL SESSIONS

Implementing Sustainable Solutions in a Changing World

Washington State Convention Center, 608

NOON–1:30PM CAREER WORKSHOPS

Citizens, Scientists, and Elections: How Scientists are Engaging in 2020

Washington State Convention Center, 4C-4

How to Make Compelling Outreach Videos When Your Science Seems Dull

Washington State Convention Center, 4C-3

Impacting the Research Enterprise Through Careers in Research Development

Washington State Convention Center, 401

NOON–3:00PM BUSINESS MEETINGS

Industrial Science and Technology Section Business Meeting

Sheraton Grand, Redwood AB
Open to all registrants

2:00PM–3:00PM PLENARY LECTURE

Bill Gates

Washington State Convention Center, Plenary Hall 4A

3:00PM–4:30PM SPECIAL EVENT

SciComm Training Discussion: Foundational Skills for Science Communication

Sheraton Grand, Capitol Hill

So You Want to Be an S&T Policy Fellow? Conversations with Current and Alumni Fellows

Sheraton Grand, Ravenna BC

3:30PM–5:00PM SCIENTIFIC SESSIONS

Averting Catastrophic Biological Incidents in the Future

Washington State Convention Center, 609

Ecosystems' True Value: European Efforts to Map and Account for Nature

Washington State Convention Center, 603

Ethical Risks of Voice Technology: A Sociolinguistic Perspective

Washington State Convention Center, 613

**Evolution of Criminal Justice:
How Science and Evidence-Based
Policy Interact**

Washington State Convention Center, 604

**How to Counter Intersectional Biases in
Social Media**

Washington State Convention Center, 6B

**Oil Spills: Advances in Mitigating
Impact and Consequences**

Washington State Convention Center, 612

**Public Trust in Science: Strength
and Skepticism**

Washington State Convention Center,
619–620

Robotic Companions and the Future of AI

Washington State Convention Center, 611

**Smart New Energy Vehicles and
Intelligent Transportation**

Washington State Convention Center, 606

**Synthetic Biology: Digital Design of
Living Systems**

Washington State Convention Center, 6A

**The Changing Identity Landscape:
Multiracial, Intersex, & Transgender
People**

Washington State Convention Center,
615–616

**Urban Sustainability: Support From
Artificial Intelligence and Big Earth
Data**

Washington State Convention Center, 6C

**Using Computing to Sustainably Feed
a Growing Population**

Washington State Convention Center, 607

3:30PM–5:00PM TOWN HALLS

**Combatting Sexual and Gender
Harassment in STEM: An Enterprise
Approach**

Washington State Convention Center, 6E

3:30PM–5:00PM SCREENING ROOM

I AM HUMAN

Washington State Convention Center, 617
Presented by University of Washington

3:30PM–5:00PM SPECIAL SESSIONS

**Legacy, Voice, and Complexity in
Science and Storytelling**

Washington State Convention Center, 608

3:30PM–5:00PM CAREER WORKSHOPS

**Envisioning Your Career of Tomorrow,
Today**

Washington State Convention Center,
4C-4

**Strategies for Securing Philanthropic
Funds in Science and Health**

Washington State Convention Center,
4C-3

**The (Gross) Anatomy of Responding to
Peer Review Commentary**

Washington State Convention Center, 401

3:30PM–5:00PM BUSINESS MEETINGS

**Journal of Science Policy and
Governance Board Meeting**

Sheraton Grand, Kirkland

Urban Science Advice—INGSA

Grand Hyatt, Portland AB

3:30PM–5:00PM E-POSTER SESSIONS

General E-Poster Presentations

Washington State Convention Center,
Expo Hall, E-Poster Pods

5:15PM–6:30PM PLENARY SESSIONS

Maryn McKenna: The Second Antibiotic EraWashington State Convention Center,
Plenary Hall 4A

Presented by



European Union

6:30PM–8:00PM SPECIAL EVENTS

**2020 AAAS Annual Meeting
Member Reception**Washington State Convention Center,
4th Floor Galleria**Connecting Scientific and Religious
Communities: AAAS DoSER Reception**

Sheraton Grand, Ballard

7:00PM–8:30PM SPECIAL EVENTS

Biological Sciences Section Reception

Sheraton Grand, Metropolitan Ballroom B

7:00PM–9:30PM BUSINESS MEETINGS

Education Section Business Meeting

Sheraton Grand, Issaquah AB

Open to all registrants

7:30PM–9:30PM BUSINESS MEETINGS

**Agriculture, Food, and Renewable
Resources Section Business Meeting**

Sheraton Grand, Redwood A

*Open to all registrants***Astronomy Section Business Meeting**

Sheraton Grand, Juniper

*Open to all registrants***Chemistry Section Business Meeting**

Sheraton Grand, Greenwood

*Open to all registrants***Information, Computing, and
Communication Section Business
Meeting**

Sheraton Grand, Redwood B

*Open to all registrants***Linguistics and Language Science
Section Business Meeting**

Sheraton Grand, Aspen

*Open to all registrants***Neuroscience Section Business Meeting**

Sheraton Grand, Madrona

*Open to all registrants***Physics Section Business Meeting**

Sheraton Grand, Leschi

*Open to all registrants***Societal Impacts of Science and
Engineering Section Business Meeting**

Sheraton Grand, Ravenna A,B,C

Open to all registrants

Saturday, February 15

7:00AM–9:00AM SPECIAL EVENTS

**Women and Minority Scientists and
Engineers Networking Breakfast**

Presented by



Sheraton Grand, Metropolitan Ballroom A

By invitation only

8:00AM–9:30AM SCIENTIFIC SESSIONS

**Artificial Intelligence Research:
A Community Roadmap**

Washington State Convention Center, 6B

**Climate and Marine Ecosystems:
Exploration, Prediction, and Protection**
Washington State Convention Center, 603

Engineering Biology and the Promotion of Community Security

Washington State Convention Center, 607

Immigration, Crime, and Justice: A Data-driven Investigation

Washington State Convention Center, 6A

Improving Food Security Policies: Innovative Agriculture and Market Monitoring

Washington State Convention Center, 611

Inclusion in the Academy: Exploring Identity and Equity in the STEM Community

Washington State Convention Center, 615–616

Resilience in the Digital Age

Washington State Convention Center, 606

Science Advocacy: Lobbying for Evidence

Washington State Convention Center, 6C

Sequencing the Genomes of Life: Protecting Biodiversity and Sustaining Society

Washington State Convention Center, 608

The Reproducibility Revolution: Impacts on Science, Journalism, and Society

Washington State Convention Center, 619–620

8:00AM–9:30AM SCREENING ROOM

The Future of Food

Washington State Convention Center, 617

Presented by University of Washington

8:00AM–10:00AM SPECIAL EVENTS

AAAS Fellows Forum

Washington State Convention Center, Plenary Hall 4A

By invitation only

9:00AM–NOON BUSINESS MEETINGS

Dentistry and Oral Health Sciences Section Business Meeting

Sheraton Grand, Juniper

Open to all registrants

9:30AM–1:00PM E-POSTER SESSIONS

Student E-Poster Session, Saturday

Washington State Convention Center, Expo Hall, E-Poster Pods

Pod 1: Brain and Behavior

Pod 2: Environment & Ecology

Pod 3: Environment & Public Health

Pod 4: Medicine & Public Health

Pod 5: Technology, Engineering, & Math Physical Science

Pod 6: Science in Society

10:00AM–11:30AM SCIENTIFIC SESSIONS

Adapting to Climate Change: Improving Connections Between Science and Society

Washington State Convention Center, 615–616

Catalysts for Energy Storage: Inspired by Nature, Built by Scientists

Washington State Convention Center, 608

Citizen Science and Big Data: From Engagement to Action

Washington State Convention Center, 619–620

Detecting, Combating, and Identifying Dis and Mis-information

Washington State Convention Center, 6C

Detecting Life and Extraterrestrial Technologies

Washington State Convention Center, 6A

Ethical Issues in Artificial Intelligence

Washington State Convention Center, 609

Finding the Lost Einsteins

Washington State Convention Center, 611

Nourishing People and Planet: Building a Better, Balanced Food System for 2050

Washington State Convention Center, 6B

Political Animals: Behavior, Knowledge, Reason, and Tomorrow's Policymaking

Washington State Convention Center, 607

STEM Research Experiences for High School Students

Washington State Convention Center, 612

The Digital Transformation of Societies: Addressing Technological Disruption

Washington State Convention Center, 606

Women's Leadership in the Global Science System

Washington State Convention Center, 603

10:00AM–11:30AM TOWN HALLS

Talking About and Acting on Climate Locally

Washington State Convention Center, 6E

10:00AM–11:30AM SPECIAL SESSIONS

The Science of Homelessness

Washington State Convention Center, 613

10:00AM–11:30AM CAREER WORKSHOPS

European Union Grants: Shake Up Your Research Abroad

Washington State Convention Center, 4C-3

From the Bench to the Ballot: Scientists in Elected Office

Washington State Convention Center, 401

Make 'em Laugh: Science Comedy to Ignite Curiosity and Increase Self-confidence

Washington State Convention Center, 4C-4

10:00AM–11:30AM SPONSORED WORKSHOP

The Science of Communicating About Science,

Sponsored by University of Florida
Washington State Convention Center, 4C-2

10:00AM–NOON BUSINESS MEETINGS

Anthropology Section Business Meeting

Sheraton Grand, Ballard
Open to all registrants

Atmospheric and Hydrospheric Sciences Section Business Meeting

Sheraton Grand, Greenwood
Open to all registrants

Biological Sciences Section Business Meeting

Sheraton Grand, Redwood A
Open to all registrants

General Interest in Science and Engineering Section Business Meeting

Sheraton Grand, Cedar AB
Open to all registrants

Geology and Geography Section Business Meeting

Sheraton Grand, Capitol Hill
Open to all registrants

History and Philosophy of Science Section Business Meeting

Sheraton Grand, Madrona
Open to all registrants

Medical Sciences Section Business Meeting

Sheraton Grand, Redwood B
Open to all registrants

Meeting of the Foundation for Science and Disability

Sheraton Grand, Leschi

Psychology Section Business Meeting

Sheraton Grand, Medina
Open to all registrants

Statistics Section Business Meeting

Sheraton Grand, Kirkland
Open to all registrants

10:00AM–12:30PM SCREENING ROOM

AAAS-Kavli Science Journalism Awards Film Showcase

Washington State Convention Center, 617
Presented by University of Washington

11:30AM–2:00PM SPECIAL EVENTS

AAAS President's Circle Luncheon

Grand Hyatt, Princessa Ballroom 1 and 2
By invitation only

NOON–1:00PM TOPICAL LECTURES

Eric Horvitz: AI Advances and Aspirations

Washington State Convention Center, 6C

Moriba Jah: Space Domain Prediction and Awareness

Washington State Convention Center, 6A

Patricia Kuhl: Baby Brains and Our Neuro-Futures

Washington State Convention Center, 603

Jane Lubchenco: Seas the Day: Science Driving Ocean and Climate Solutions

Washington State Convention Center, 6B

JOHN P. MCGOVERN LECTURE IN THE BEHAVIORAL SCIENCES**Lisa Feldman Barrett: Variation is the Norm: Darwin's Population Thinking and the Science of Emotion**

Washington State Convention Center, 615–616

Diane L Souvaine: Beyond Complacency: Renewing America's Endless Frontier

Washington State Convention Center, 619–620

1:30PM–3:00PM SCIENTIFIC SESSIONS

Boundary Spanning: Environmental Science and Decision-making

Washington State Convention Center, 607

Clean Aviation in Tomorrow's World

Washington State Convention Center, 608

Climate Change Mitigation: The Roles of Industry and the Private Sector

Washington State Convention Center, 603

Communication Through Touch: From Babies to Social Robots

Washington State Convention Center, 6C

Health Disparities: The Intersection of Psychology, History, Law, and Medicine

Washington State Convention Center, 606

Improved Wildfire Resilience: Leveraging Science and Technology

Washington State Convention Center, 615–616

Infectious Disease Forecasting: Models and Machine Learning

Washington State Convention Center, 6A

Nature Conservation and Computational Technologies: Expanding the Scale

Washington State Convention Center, 613

Public Engagement at Universities: Pathways for Institutional Support

Washington State Convention Center, 609

Saving Science Journalism: Actions for Science Communication Researchers

Washington State Convention Center, 611

Socially Integrative Cities: Paving the Way to Urban Sustainability

Washington State Convention Center, 619–620

The Future of Water and Human Decision-making
Washington State Convention Center, 6B

Tracing How Scientific Infrastructure Accelerates Discovery
Washington State Convention Center, 612

1:30PM–3:00PM TOWN HALLS

100 Years of the 19th Amendment: A Discussion on Progress and Challenges
Washington State Convention Center, 6E

1:30PM–3:00PM SCREENING ROOM

American Premiere: *Under Thin Ice*
Washington State Convention Center, 617
Presented by University of Washington

1:30PM–3:00PM CAREER WORKSHOPS

Crafting a Narrative for Your Post-academic Career
Washington State Convention Center, 401

Navigating Difficult Situations in Public Science Communication
Washington State Convention Center, 4C-4

Science in the Public Arena: Informing Decision Makers in High-Profile Settings
Washington State Convention Center, 4C-3

1:30PM–3:00PM SPONSORED WORKSHOPS

Genomics, Past and Future, with a Preview of Upcoming Film *Ken Burns Presents The Gene: An Intimate History*
Sponsored by NIH-National Human Genome Research Institute
Washington State Convention Center, 4C-2

1:30PM–4:30PM BUSINESS MEETINGS

AJAS Oral Presentations
Sheraton Grand,
Issaquah AB
Ballard
Medina
Leschi
Kirkland
Greenwood
Ravenna A
Ravenna B
Ravenna C

2:30PM–3:30PM BUSINESS MEETINGS

Committee on Council Affairs: Open Hearing
Grand Hyatt, Discovery AB

3:30PM–5:00PM SCIENTIFIC SESSIONS

AI for Climate Change Adaptation
Washington State Convention Center, 608

China's Road Towards Ecological Civilization and Environmental Sustainability
Washington State Convention Center, 619–620

Envisioning Ocean Climate Solutions for the Next Generation
Washington State Convention Center, 612

Equity in Genomic Medicine: Giving Voice to Indigenous Genetic Variation
Washington State Convention Center, 606

Ethnography, Observation, and Natural History: Tools for Ethical Science
Washington State Convention Center, 611

Evolving Concepts of Scientific Integrity and Practice
Washington State Convention Center, 6A

Geoscience Literacy and Community Resilience

Washington State Convention Center, 603

How Congress Uses Science and Technology for Policy: Emerging Research

Washington State Convention Center, 615-616

Is the Coast Toast? Cascadia Mega-Earthquakes, Tsunamis, and Potential Impacts

Washington State Convention Center, 6B

Next Generation Computer Hardware

Washington State Convention Center, 613

Pharmaceutical Manufacturing: Sustainable Innovations to Produce Zero Waste

Washington State Convention Center, 607

Supporting the Whole Student: Mental Health, Substance Abuse, and Well-Being

Washington State Convention Center, 609

Tomorrow's Table: Plant Genetics and the Future of Food

Washington State Convention Center, 6C

3:30PM-5:00PM TOWN HALLS

The Economics of Climate Change

Washington State Convention Center, 6E

3:30PM-5:00PM SCREENING ROOM

Chasing EinsteinWashington State Convention Center, 617
Presented by University of Washington

3:30PM-5:00PM CAREER WORKSHOPS

Bull's Eye: Developing Specific Aims for a Successful Research Proposal

Washington State Convention Center, 4C-4

Exploring Careers at National Laboratories

Washington State Convention Center, 4C-3

Exploring Diverse Avenues to a Career in Science Policy

Washington State Convention Center, 401

3:30PM-5:00PM BUSINESS MEETINGS

Committee on Council Affairs: Closed HearingGrand Hyatt, Portland AB
Closed meeting

3:30PM-5:00PM SPECIAL EVENTS

Science Media Roundtables

Washington State Convention, Center 4C-1

4:00PM-5:00PM SPECIAL EVENTS

AAAS/Kavli Reception Anniversary

Washington State Convention Center, Level 4 Galleria

5:15PM-6:30PM PLENARY SESSIONS

Alondra Nelson: The Social Life of DNA and the Need for a New Bioethics

Washington State Convention Center, Plenary Hall 4A

6:30PM-8:00PM SPECIAL EVENTS

The AAAS International Reception Presented by UK Research and InnovationUK Research
and Innovation

Grand Hyatt, Leonosa Ballroom

AAAS Science on Tap Brew Event

Optimism Brewery

7:00PM–8:30PM SPECIAL EVENTS

2020 Science Policy Networking Mixer
Sheraton Grand, Metropolitan Ballroom A

**Public Engagement with Science
Networking Reception**

Sheraton Grand, Ravenna A,B,C

8:00PM–10:0PM SPECIAL EVENTS

Annals of Improbable Research
Sheraton Grand, Princessa Ballroom

Sunday, February 16

8:00AM–9:30AM FLASH TALKS

Health and the Mind
Washington State Convention Center, 604
Presented by Science on Tap



8:00AM–9:30AM SCIENTIFIC SESSIONS

**50th Anniversary of the Vietnam Draft:
Lessons for the Sciences**
Washington State Convention Center,
615–616

**Artificial Intelligence and Machine
Learning: Designing for Safety and
Security**
Washington State Convention Center, 6A

**Biological Invasion Forecasting: Uniting
Climate Change, Transport, and Trade**
Washington State Convention Center, 608

**Diet for a Sick Planet: Reducing
Emissions and the Burden of
Chronic Disease**
Washington State Convention Center, 609

**Dynamic RNA Modifications: Roles in
Disease and Environmental Response**
Washington State Convention Center,
613–614

**Ethical Concerns With Advances in
Technology and Genetics**
Washington State Convention Center, 6C

**Factories Reimagined: Making
Industrial Work More Appealing**
Washington State Convention Center, 6B

**Psychological Science: Lessons for
the Law**
Washington State Convention Center, 603

**Science Communication Strategies for
Building Relationships with the Public**
Washington State Convention Center, 607

**The Global Water Cycle: Understanding
Today and Tomorrow**
Washington State Convention Center,
619–620

8:00AM–9:30AM SCREENING ROOM

The Other Side of Mars
Washington State Convention Center, 617
Presented by University of Washington

9:00AM–11:00AM BUSINESS MEETINGS

**Legislative Science Advice:
An International Research Agenda**
Sheraton Grand, Greenwood

9:00AM–NOON SPECIAL SESSIONS

**Science Communication and
Engagement with Religious Publics**
Sheraton Grand, Ravenna A,B,C

9:00AM–12:30PM BUSINESS MEETINGS

Meeting of the AAAS Council
Grand Hyatt, Eliza Anderson
Amphitheater

9:30AM–1:00PM E-POSTER SESSIONS

Student E-Poster Session, Sunday

Washington State Convention Center,
Expo Hall, E-Poster Pods
Pod 1: Biochemistry & Molecular Biology
Pod 2: Biochemistry & Molecular Biology
Pod 3: Cell Biology
Pod 4: Developmental Biology, Genetics
& Immunology
Pod 5: Developmental Biology, Genetics
& Immunology
Pod 6: Social Sciences

10:00AM–11:30AM FLASH TALKS

Environment and the Lived Experience

Washington State Convention Center, 604
Presented by Science on Tap



10:00AM–11:30AM SCIENTIFIC SESSIONS

Cultural Connections: Communicating Science to Communities and Congress

Washington State Convention Center,
619–620

Food Safety Regulations: Carcinogens and the Relevance of the Delaney Clause

Washington State Convention Center, 609

Fossil Fuel Production and Climate Change: Aligning Goals and Policies

Washington State Convention Center, 6A

Grasslands and Savannas: Human Imperatives and Biodiversity Conservation

Washington State Convention Center, 6C

Human Cell Atlas: Transforming Biology and Healthcare

Washington State Convention Center, 608

Inclusivity and Equity in Course-based Undergraduate Research Experiences

Washington State Convention Center,
615–616

Solar Geoengineering Research Around the Globe

Washington State Convention Center, 613

Transforming Global and Public Health through Nature

Washington State Convention Center, 6B

Urban Paving is Going Places

Washington State Convention Center, 607

10:00AM–11:30AM TOWN HALLS

Science Engagement and Advocacy: From Theory to Practice

Washington State Convention Center, 6E

10:00AM–11:30AM SCREENING ROOM

The Pollinators

Washington State Convention Center, 617
Presented by University of Washington

10:00AM–11:30AM CAREER WORKSHOPS

Careers in State Science, Technology, and Innovation Policy

Washington State Convention Center,
4C-3

10:00AM–11:30PM SPECIAL SESSIONS

Data-driven Innovations in Coastal Resilience Assessment: USA and UK Perspectives

Washington State Convention Center,
603

Self-documentation of Field Research and Visual Communication

Washington State Convention Center,
401

Envisioning Tomorrow's STEM Workplace: Think Globally, Act Locally
Washington State Convention Center, 4C-4

10:30AM-NOON BUSINESS MEETINGS

AAAS Science & Technology Policy Fellowships Alumni Meeting
Sheraton Grand, Capitol Hill

NOON-1:00PM TOPICAL LECTURES

Elham Kashefi: Quantum Cloud Computing
Washington State Convention Center, 6C

David Keith: Geoengineering and Our Climate Future
Washington State Convention Center, 6B

Kristina Olson: Transgender Children
Washington State Convention Center, 6A

SARTON MEMORIAL LECTURE IN THE HISTORY AND PHILOSOPHY OF SCIENCE

Alison Wylie: The Indigenous/Science Project: Collaborative Practice as Witnessing
Washington State Convention Center, 603

NOON-1:30PM SCREENING ROOM

Picture Character
Washington State Convention Center, 617
Presented by University of Washington

1:30PM-3:00PM FLASH TALKS

Human Development and Innovation
Washington State Convention Center, 604
Presented by Science on Tap



1:30PM-3:00PM SCIENTIFIC SESSIONS

Arctic Influences on Severe Winter Weather
Washington State Convention Center, 6B

Crop Diversification: Ensuring a Sustainable Global Food Supply
Washington State Convention Center, 608

Geospatial Insights for a Sustainable Environment
Washington State Convention Center, 619-620

Imperiled Cultural Heritage: Mitigating Threats, Co-producing Knowledge
Washington State Convention Center, 607

Nature Remade: Engineering Life from the Past to Future Worlds
Washington State Convention Center, 603

Reading Emotions From Facial Expressions: Implications for Technology and Health
Washington State Convention Center, 615-616

Social Media and the Transformation of Science Advice
Washington State Convention Center, 613-614

Synthetic Biology and the Next-Generation Bioeconomy
Washington State Convention Center, 609

The Future of Sustainability Science in the United States
Washington State Convention Center, 6A

Viewing Tomorrow's Earth from Space and Surface
Washington State Convention Center, 6C

1:30PM-3:00PM TOWN HALLS

Greening the 2021 Annual Meeting: Taking Action in the Desert
Washington State Convention Center, 6E

1:30PM–3:00PM CAREER WORKSHOPS
How Youth Can Contribute to the Sustainable Development Goals
 Washington State Convention Center, 4C-4

OUT on the Job Search: Finding a Welcoming Environment
 Washington State Convention Center, 4C-3

Teaching Inclusively with Evidence-Based Strategies
 Washington State Convention Center, 401

1:30PM–5:00PM SCREENING ROOM
Oliver Sacks: His Own Life
 Washington State Convention Center, 617
 Presented by University of Washington

3:30PM–5:00PM FLASH TALKS
Communication and Community-building
 Washington State Convention Center, 604
 Presented by Science on Tap



3:30PM–5:00PM SCIENTIFIC SESSIONS
Biological Normalcy and Human Variation: Three Case Studies
 Washington State Convention Center, 615–616

Climate Change and Climate Extremes: Precipitation and Projections
 Washington State Convention Center, 619–620

Constructing and Perceiving Beauty
 Washington State Convention Center, 608

Death In the 21st Century: What is Left Behind
 Washington State Convention Center, 6B

Implicit Bias, Explicit Science
 Washington State Convention Center, 603

Managing Water: New Tools for Sustainable Development
 Washington State Convention Center, 613

Marine Mammal Health Assessments: Informing Scientists, Policy, and the Public
 Washington State Convention Center, 609

Tackling Social Risk Factors, Health, and Care
 Washington State Convention Center, 607

The Global Carbon Cycle: Implications for Life Beyond the 21st Century
 Washington State Convention Center, 6C

Women in STEM: Addressing Underrepresentation
 Washington State Convention Center, 6A

3:30PM–5:00PM TOWN HALLS
Developing Ethical Guidelines for Science Journalism
 Washington State Convention Center, 6E

3:30PM–5:00PM CAREER WORKSHOPS
Building A Responsive Network For Tomorrow's Science Communication Needs
 Washington State Convention Center, 401

Friends of the Science Pod: Podcasting, Outreach, and Professional Networking
 Washington State Convention Center, 4C-4

Shaping STEM Policy Without Changing Careers: Local Government Opportunities
 Washington State Convention Center, 4C-3

5:15PM–6:30PM PLENARY SESSIONS
Krysta Svore: Develop for Quantum Impact
 Washington State Convention Center, Plenary Hall 4A

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The following AAAS Sections and other organizations played a role in developing or financially supporting the sessions listed below.

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AGRICULTURE, FOOD, AND RENEWABLE RESOURCES (O)

Food of the Future: Developing New, Sustainable, and Healthy Sources

ANTHROPOLOGY (H)

ASTRONOMY (D)

ATMOSPHERIC AND HYDROSPHERIC SCIENCES (W)

Fossil Fuel Production and Climate Change: Aligning Goals and Policies

The Reef Crisis in Earth's Future

BIOLOGICAL SCIENCES (G)

Biological Invasion Forecasting: Uniting Climate Change, Transport, and Trade

Flash Talks

How Congress Uses Science and Technology for Policy: Emerging Research

Sustainable Agriculture: Launching Standardized Microbial Ecosystems

Synthetic Biology and the Next-Generation Bioeconomy

Tomorrow's Table: Plant Genetics and the Future of Food

Tracing How Scientific Infrastructure Accelerates Discovery

Urban Paving is Going Places

Women's Leadership in the Global Science System

CHEMISTRY (C)

DENTISTRY AND ORAL HEALTH SCIENCES (R)

Oral Cancer: Using the HPV Vaccine for Prevention

EDUCATION (Q)

Inclusion in the Academy: Exploring Identity and Equity in the STEM Community

Inclusivity and Equity in Course-based Undergraduate Research Experiences

Transforming Higher Education Culture: Coordinating Reform with Agents of Change

ENGINEERING (M)

Carbon Economy: Considerations for the United States and Pacific Rim

Catalysts for Energy Storage: Inspired by Nature, Built by Scientists

Ethical Issues in Artificial Intelligence

Food of the Future: Developing New, Sustainable, and Healthy Sources

Fossil Fuel Production and Climate Change: Aligning Goals and Policies

Pharmaceutical Manufacturing: Sustainable Innovations to Produce Zero Waste

Social Media and the Transformation of Science Advice

The Biological Engineering Revolution: Strategies for a Sustainable Scale-up

The Digital Transformation of Societies: Addressing Technological Disruption

GENERAL INTEREST IN SCIENCE AND ENGINEERING (Y)

Carbon Economy: Considerations for the United States and Pacific Rim

Food of the Future: Developing New, Sustainable, and Healthy Sources

Fossil Fuel Production and Climate Change: Aligning Goals and Policies

Public Engagement at Universities: Pathways for Institutional Support

Science is Political, Not Partisan: Best Practices for Science Policy Advocates

The Digital Transformation of Societies: Addressing Technological Disruption

GEOLOGY AND GEOGRAPHY (E)

HISTORY AND PHILOSOPHY OF SCIENCE (L)

Convergent Science: Combating Africa's Wildlife Crisis

Evolving Concepts of Scientific Integrity and Practice

Science Advocacy: Lobbying for Evidence

The Reef Crisis in Earth's Future

INDUSTRIAL SCIENCE AND TECHNOLOGY (P)

Carbon Economy: Considerations for the United States and Pacific Rim

Catalysts for Energy Storage: Inspired by Nature, Built by Scientists

Convergent Science: Combating Africa's Wildlife Crisis

Food of the Future: Developing New, Sustainable, and Healthy Sources

Fossil Fuel Production and Climate Change: Aligning Goals and Policies

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Ethical Issues in Artificial Intelligence

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The Reproducibility Revolution: Impacts on Science,
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Catalysts for Energy Storage: Inspired by Nature, Built
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PSYCHOLOGY (J)

Finding the Lost Einsteins

Inclusivity and Equity in Course-based Undergraduate
Research Experiences

Psychological Science: Lessons for the Law

The Changing Identity Landscape: Multiracial, Intersex,
& Transgender People

The Reproducibility Revolution: Impacts on Science,
Journalism, and Society

SOCIAL, ECONOMIC, AND POLITICAL SCIENCES (K)

Inclusion in the Academy: Exploring Identity and Equity
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Science is Political, Not Partisan: Best Practices for
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The Digital Transformation of Societies: Addressing
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Carbon Economy: Considerations for the United States
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Ethical Issues in Artificial Intelligence

Evolving Concepts of Scientific Integrity and Practice

Food of the Future: Developing New, Sustainable, and
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Fossil Fuel Production and Climate Change: Aligning
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Pharmaceutical Manufacturing: Sustainable
Innovations to Produce Zero Waste

Science is Political, Not Partisan: Best Practices for
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Social Media and the Transformation of Science Advice

Transforming Higher Education Culture: Coordinating
Reform with Agents of Change

STATISTICS(U)

Ethical Issues in Artificial Intelligence

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Ethical Issues in Artificial Intelligence

GENDERINSITE

Women's Leadership in the Global Science System

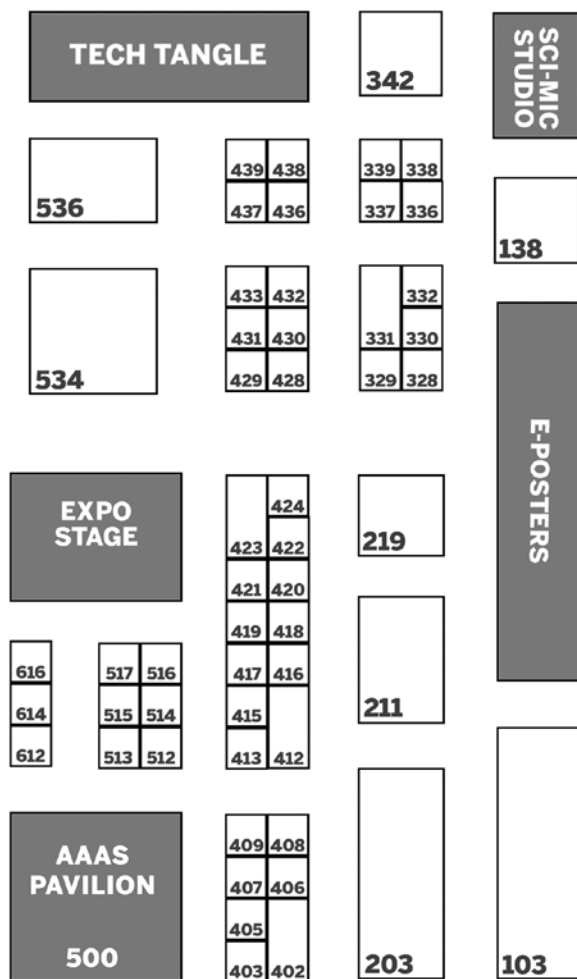
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Urban Paving is Going Places

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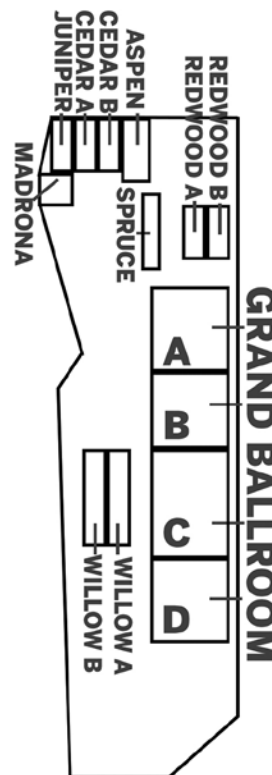
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Sheraton Grand Seattle

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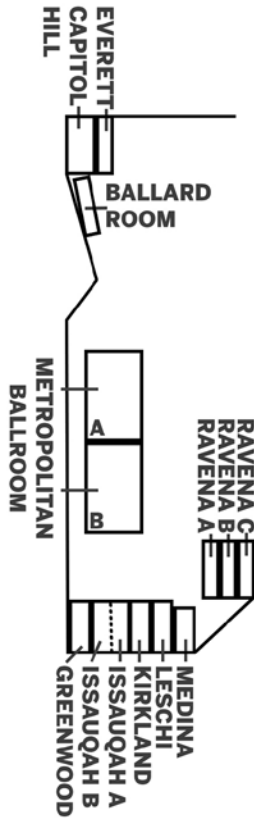
Business Meetings and Special Events



Sheraton Grand Seattle

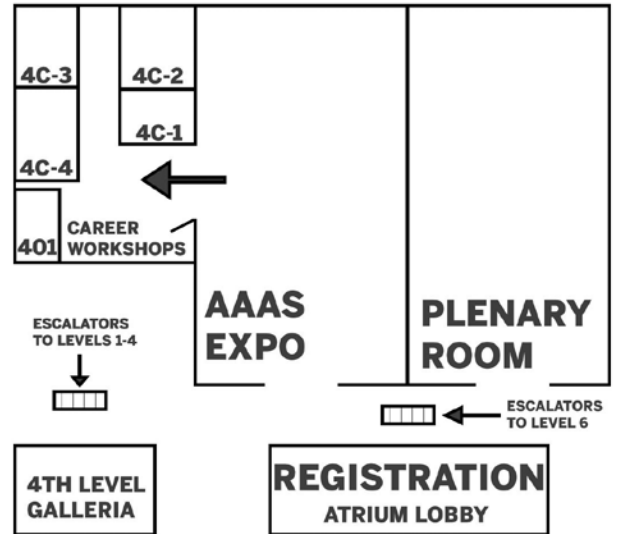
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**Business Meetings
and Special Events**

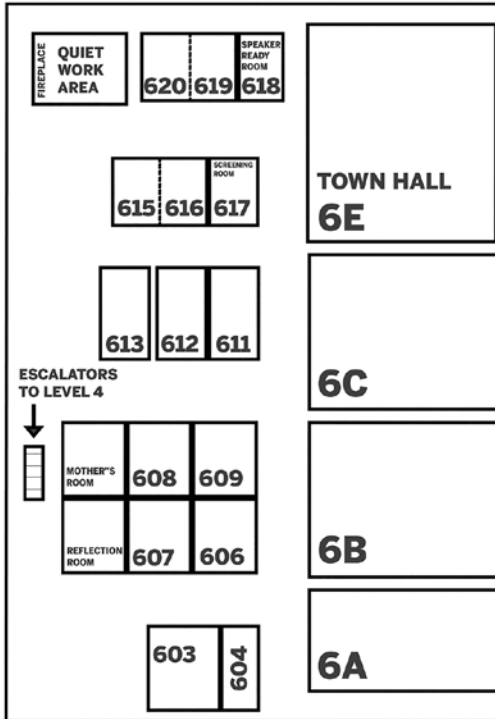


Washington State Convention Center

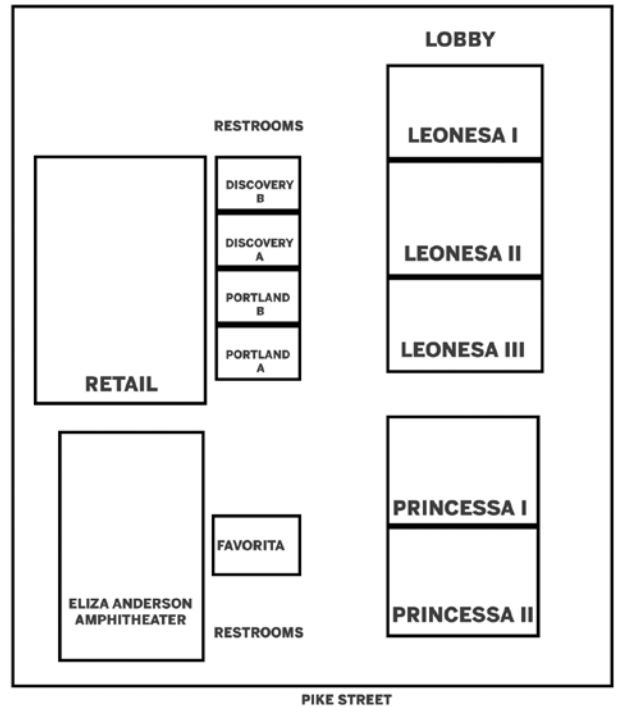
LEVEL 4



LEVEL 6



FIRST FLOOR/LOBBY LEVEL



Notes
