



PROGRAM BOOK

INTERNATIONAL SNOW SCIENCE WORKSHOP
A MERGING OF THEORY AND PRACTICE

OCTOBER 8-13, 2023 | BEND, OREGON, USA

WWW.ISSW2023.COM

CONTENTS

01	WELCOME LETTER	5
02	HEALTH & SAFETY	6
03	ABOUT ISSW	7
04	ISSW 2023 COMMITTEES	8
05	VENUE FLOOR PLAN	12
06	PROGRAM SUMMARY	14
07	SCHEDULE AT A GLANCE	19
08	EXHIBITS & POSTER HALL INFORMATION	23
09	SOCIAL EVENTS	33
10	GENERAL INFORMATION	36



SPONSOR RECOGNITION

Presenting Sponsor



*avalanche
control*

Safety Sponsor



Wellbeing Sponsor

FrontlineMind

Supporting Sponsors



Supporters



AMERICAN
AVALANCHE
ASSOCIATION



canadianavalancheassociation



MAMMUT
SWISS 1862



SNOWBOUND
SOLUTIONS LLC

01 WELCOME LETTER



Kevin Grove
ISSW 2023 Co-Chair



Zoë Roy
ISSW 2023 Co-Chair

The International Snow Science Workshop (ISSW) welcomes around 1,000 local, national and international participants, from experts to decision-makers and stakeholders from the snow and avalanche industry. The thematic focus lies on current advances in snow and avalanche science, case studies and innovative technologies on an international level, merging theory and practice. Unlike any other symposium, the ISSW promotes an international and interdisciplinary exchange between experts in the snow and avalanche community. Different presentation formats like oral and poster presentations, panel discussions, as well as the integration of an international exhibition, allow direct interaction amongst the broad target audience.

We have provided the location and framework, now it is up to you to take full advantage of this opportunity to learn, enjoy, network, mingle, play, ask questions and forge friendships with your fellow attendees. We look forward to seeing this event that has been years in the making come to fruition!

Cheers and thank you for being here!

Kevin Grove & Zoë Roy
ISSW 2023 Co-Chairs



02 HEALTH & SAFETY

ISSW2023 will be hosted as an in-person event in Bend, Oregon at the Riverhouse on the Deschutes Convention Center.

The health and safety of all our conference attendees is of the utmost importance. Although there are currently no restrictions in place for large gatherings in the state of Oregon, we still want your visit to be a safe one.

We fully support precautions such as face masks and regular handwashing to ensure a safe environment for all throughout the conference.

For the latest current measures, please visit <https://www.oregon.gov/oha/covid19/pages/masks.aspx>



03 ABOUT ISSW

The International Snow Science Workshop (ISSW) exists to facilitate the interdisciplinary exchange of ideas and experiences between snow science researchers and practitioners. The motto of the International Snow Science Workshop is *“A Merging of Theory and Practice”*. ISSW is a biennial conference in North America and Europe that brings together researchers and practitioners from all over the world. The ISSW started in 1976 in Banff, Alberta, Canada, and now rotates between locations in the United States, Canada, and Europe.

04

ISSW2023 COMMITTEES

ORGANIZING COMMITTEE CO-CHAIRS



Kevin Grove
ISSW 2023 Co-Chair



Zoë Roy
ISSW 2023 Co-Chair

SCIENTIFIC COMMITTEE



Erich Peitzsch
Chair



Hans-Peter Marshall



Scott Savage



Simon Trautman

Supported by
James Espeland and the Montana State University Library staff



ABSTRACT REVIEWERS

Chelan Babineau-Z
Ned Bair
Karl Birkeland
Ken Bokelund
Doug Chabot
Adam Clark
Mike Conlan
Howard Conway
Ethan Davis
Jeff Deems
Kelly Elder
Rune Verpe Engeset
Ryan Evanczyk
Jan-Thomas Fischer
James Floyer
Peter Gauer
Johan Gaume
Manuel Genswein
Dallas Glass
Ethan Greene
Zach Guy
Pascal Haegeli
Robert Hahn
Kevin Hammonds
David Hamre

Holt Hancock
Scott Havens
Grant Helgeson
Audun Hetland
David Hill
Simon Horton
Bruce Jamieson
Greg Johnson
Aleph Johnston-Bloom
Alan Jones
Karl Klassen
Jason Konigsberg
Markus Landrø
Eeva Latosuo
Brian Lazar
Spencer Logan
Chris Lundy
Hans-Peter Marshall
Kelly McNeil
Zach Miller
Christoph Mitterer
Shad O'Neel
Erich Peitzsch
Chris Pielmeier
Ingrid Reiweger

Dave Richards
Vincenzo Romeo
Scott Savage
Andrew Schauer
Jürg Schweizer
Donald Sharaf
Ron Simenhois
Anne St. Clair
Grant Statham
John Stimberis
John Sykes
Frank Techel
Michaela Teich
Simon Trautman
Jon Tukman
Jon Ueland
Alec van Herwijnen
Ben VandenBos
Wendy Wagner
Katie Warren
Katreen Wikstrom Jones
Lynne Wolfe
Gabriel Wolken
Ryan Zarter
Benjamin Zweifel

DIVA NIGHT COMMITTEE

Katie Warren, Committee chair
Betsy Norsen
Eeva Latosuo
Sarah Carpenter
Roz Reynolds
Lynne Wolfe
Brooke Edwards





ISSW STEERING COMMITTEE

Ed Adams - 2000 Chair - MT, USA
Don Bachman - Member - MT, USA
Will Barrett - 2016 Co-Chair - CO, USA
Jack Bennetto - 2002 Chair - BC, CANADA
Karl Birkeland - Member - MT, USA
Stan Bones - 1990 Chair - MT, USA
Tony Daffern - Member - AB, CANADA
Kelly Elder - Member - WY, USA
Liam Fitzgerald - 1994 Chair - UT, USA
Brian Gould - 2008 Co-Chair - BC, CANADA
Ethan Greene - 2016 Co-Chair - CO, USA
Nicole Greene - 2006 Co-Chair - CO, USA
Dave Hamre - 2012 Chair - AK, USA
Larry Heywood - 1986 Chair - CA, USA
Bruce Jamieson - 1996 Chair - AB, CANADA
Russ Johnson - 2010 Chair - CA, USA
Fay Johnson - Member - MT, USA
Janet Kellam - Member - ID, USA
Steve Kuijt - 2020 VSSW Chair - BC, CANADA
Rich Marriott - Secretary; 1998 Co-Chair - WA, USA
Rudi Mair - 2018 Co-Chair - AUSTRIA
Mark Moore - 1998 Chair - WA, USA
Samuel Morin - Member - FRANCE
Florence Naaim - 2013 Co-Chair - FRANCE
Rod Newcomb - 2004 Chair - WY, USA
Joe Obad - Executive Director CAA - AB, CANADA
Scott Savage - President AAA - ID, USA
Juerg Schweizer - 2009 Chair - SWITZERLAND
Grant Statham - 2014 Chair - AB CANADA
Michael Staudinger - European Rep - AUSTRIA
Helen Steiner - 2008 Co-Chair - BC CANADA
Craig Sterbenz - 2006 Co-Chair - CO, USA
Chris Stetham - 1988 Chair - AB CANADA
Gebhard Walter - 2018 Co-Chair - AUSTRIA
Knox Williams - 1992 Chair - CO, USA
Bill Williamson - Member - CA, USA



VOLUNTEERS

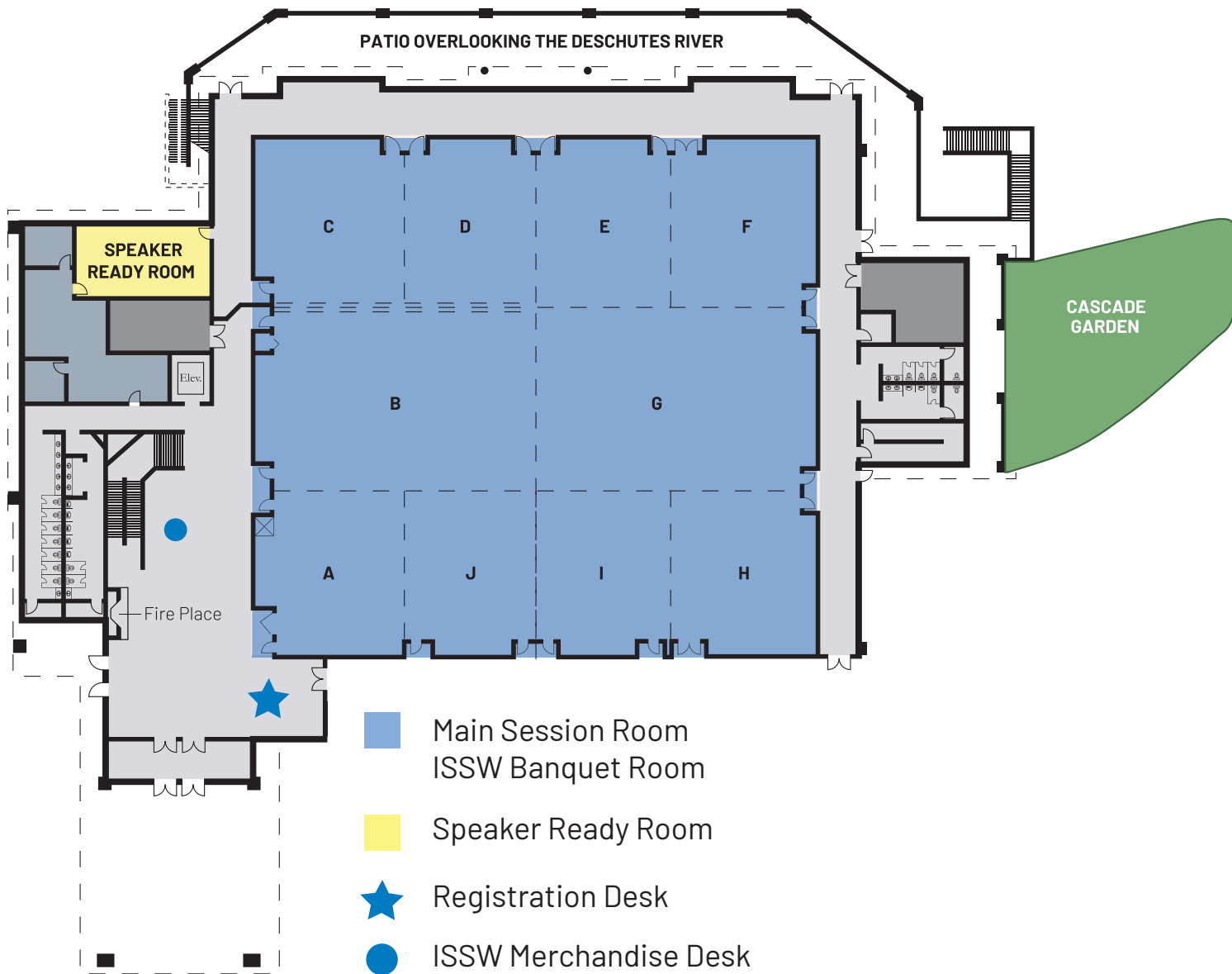
Paul Diegel, Committee Chair
Alexis Alloway
Michael Altherr
Linda Ballard
Henry Ballard
Neil Baunsgard
Sierra Bishop
Peter Biskind
Meredith Broderic
Julie Cossette
Cody Cottier
Steve Eversmeyer
Cynthia Gagnon
Cale Geffre
Eric Geisler

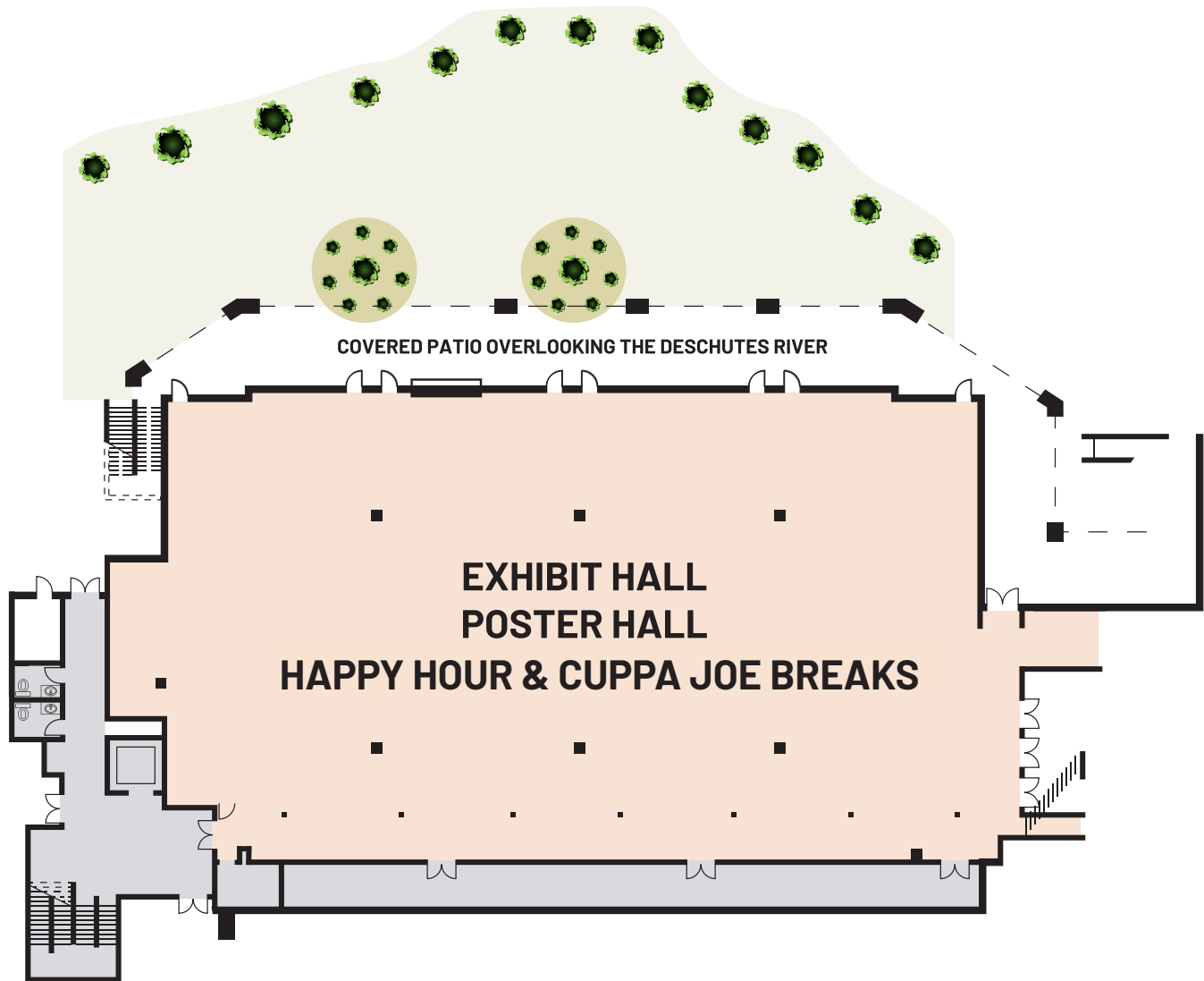
Corey Green
Tully Hamer
Patrick Herrmann
Matt Hickok
Kyle Hornor
Wyatt Hubbard
Jerry Isaak
Alexis Kane
Kirill Kokorin
Katy Lanfri
Ian Laurenson
Evan Leonard
Matt MacDonald
Alberto Mariani
Christine Mazanitis

Tyler Meyers
Russell Miller
Bruce Moffatt
Zach Peterson
John Pope
Katrina Roloff
Carol Sanner
Gretchen Stover
John Stroud
Emily Struss
Steven Swartzbart
Michael Walenta
Bart Wills
Matt Zupan

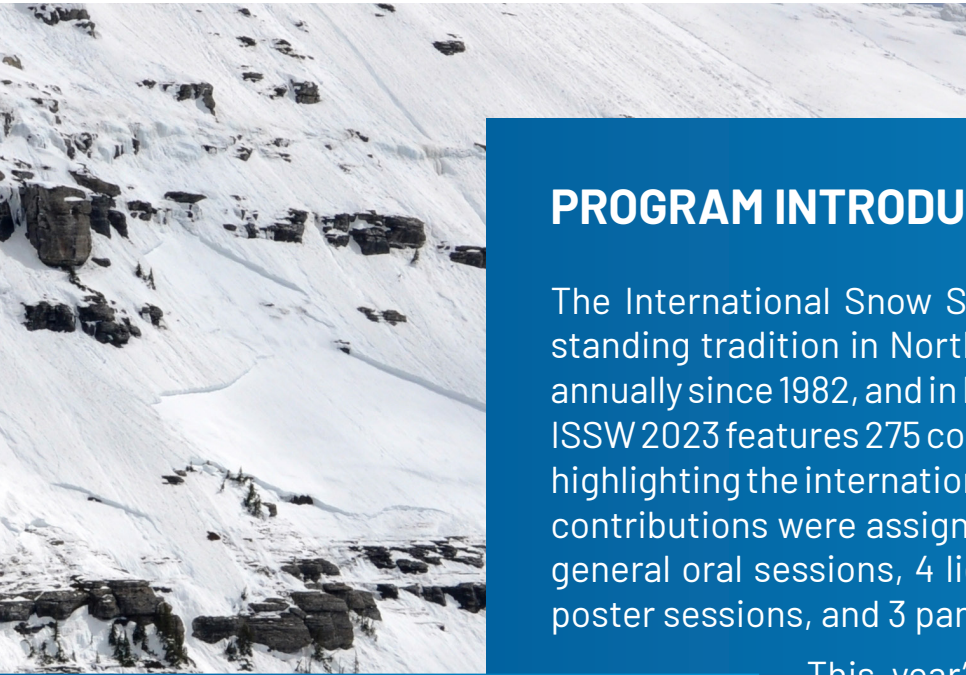


05 VENUE FLOOR PLAN



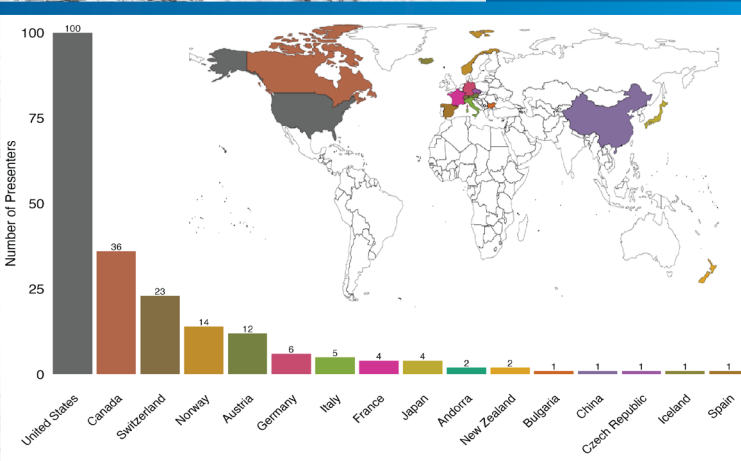


06 PROGRAM SUMMARY

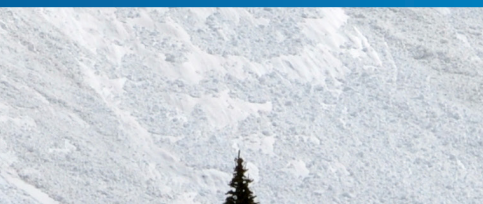


PROGRAM INTRODUCTION

The International Snow Science Workshop (ISSW) has a long-standing tradition in North America, where it has been held bi-annually since 1982, and in Europe since 2009. The program of the ISSW 2023 features 275 contributions from 16 different countries highlighting the international character of the conference. These contributions were assigned to 22 sessions, distributed over 12 general oral sessions, 4 lightning oral presentation sessions, 3 poster sessions, and 3 panel discussions.



This year's ISSW consists of 80 oral and 195 poster presentations, in addition to the 3 panel discussions. All of the sessions embody the ISSW motto 'A Merging of Theory and Practice', promoting knowledge transfer between scientists and practitioners. Posters are presented during designated poster sessions in the afternoon and displayed all day in conjunction with the exhibitors. To promote the variety of presentation methods, posters are highlighted in poster session summaries by the oral session moderators after the last oral presentation of each session.





PRESENTATIONS

The topics of each session represent the main themes of snow and avalanche research and practice. Every **general oral session** consists of 3 to 5, 12 minute presentations followed by 3 minutes for questions and discussion after each presentation.

Lightning Presentation sessions consist of 5 to 7 presentations of 6 or 10 minutes each, depending on the session. These sessions have 10 minutes at the end of each session's presentations for questions and discussion.

Poster sessions take place on Monday, Tuesday, and Thursday, and posters are displayed each day. Poster session topics are related to the general and lightning sessions each day. Oral session moderators provide a summary of the posters related to each oral session.

AGENDA

Avalanche Forecasting	01, 04*, 05, P1
Avalanche Formation, Failure, and Dynamics	02, 09, P1
Decision Making	03, 08*, P1
Climate and Avalanches	06, P2
Avalanche Incidents and Case Studies	07, P2
Instrumentation and Remote Sensing	010, P3
Snow and Snowpack Properties	011, 016*, P3
Avalanche Education	012*, P3
Planning and Engineering	013, P2
Avalanche Operations and Program Management	014, P3
Avalanche Rescue and Operational Stress Management	015, P2

*Lightning Oral Sessions (6 or 10 minute presentations depending on session)





PANEL DISCUSSIONS

Three Panel sessions cover specific topics that blend several general and lightning presentation sessions. These afternoon sessions are one hour on Monday, Tuesday, and Thursday. They consist of 3 to 4 panelists and 1 moderator, all of whom are specialists or experts in that particular field. The Panel sessions run concurrently with the Poster session each of those days.

Panel 1: *Digital tools for recreational avalanche risk management - the future ain't what it used to be.*

Panel 2: *Including RACs in your avalanche mitigation plan - experiences from industry users.*

Panel 3: *Forecasting stress and resilience - operational issues and innovations.*

REVIEW AND SCHEDULING

To provide a high quality and variety-rich program, the ISSW 2023 Science Program Committee applied a transparent review and scheduling process, emphasizing the involvement of the international snow and avalanche community. Each short abstract was assigned to two to three of the 75 international reviewers who scored abstracts based on the quality of the study, the level of merging of theory and practice, applicability to a broad audience in the avalanche community, and the contribution to the snow and avalanche industry. The Science Program Committee followed the reviewers' scoring while also emphasizing the diversity of the program. The program features a blend of theoretical and practical work, and the Science Program Committee prioritized work that merges theory and practice in the spirit of ISSW.





YOUNG SNOW PROFESSIONAL (YSP) AWARD

The Young Snow Professional (YSP) Award was created in 2018 for the ISSW in Innsbruck, Austria. The YSP award acknowledges the dedication and efforts of young (<30 years old) snow and avalanche researchers and practitioners who have submitted abstracts to ISSW.

The YSP awards were selected by the Science Program Committee and supported by the American Avalanche Association and the ISSW 2023 local organizing committee. In addition, two YSP recipients were selected and supported by the Austrian Association for Snow and Avalanches (OEGSL). We welcome other organizations from other countries to sponsor and support YSP awards in the future.

Recipients of the 2023 ISSW YSP Awards include:

Amelie Fees presenting:

Glide-snow avalanches: the influence of spatial variation in interfacial friction and snow cover on avalanche release.

Anneliese Neweduk presenting:

Characterizing an increasingly diverse and growing backcountry community: A holistic and informative approach using the concept of personas.

Martin Perfler presenting:

Assessing avalanche problems for operational avalanche forecasting based on different model chains.

Veronika Hatvan presenting:

A model-chain approach to assess and predict local avalanche risk.



POSTER SESSIONS

Poster sessions are scheduled on Monday, Tuesday, and Thursday from 4:00 to 6:30 p.m.

Poster sessions overlap with each day's social hour.

Poster set-up is at the Riverhouse Convention Center from 7:00 to 8:00 a.m. on respective days and also from 6:00 PM to 8:00 PM on Sunday, October 8, 2023 for Monday sessions.

The poster hall will be open to attendees from 8:00 a.m. to 7:00 p.m.

Plan to be available to discuss your poster during the 4:00 to 6:30 p.m. time slot.

We recognize that some scientific content is best displayed in digital format. If necessary, we encourage authors to include a QR code on their poster that directs readers to a site that hosts your digital visualization or an associated publication. You may also bring a small laptop or tablet with you for displaying supplementary material that cannot be included on a static poster. Note that there will not be tables or stands for laptops or tablets as there is only enough space for a poster.

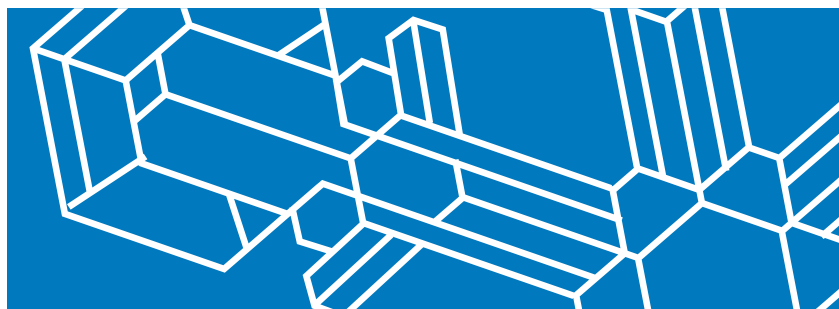
Please remove your poster at the end of your session.

ORAL SESSIONS

The speakers will need to come to the speaker ready room to upload their presentation. Oral presenters will be receiving an email with the naming convention for their presentation file and information on where to upload their presentation. This is to allow for a smooth transition of the presentations to the main computer in the session room. The presentations must be uploaded no later than the day before for all the first-morning sessions or one hour prior to the start of sessions scheduled later in the day. However, we strongly recommend all speakers upload their presentations the day prior to their presentation.

SPEAKER READY ROOM HOURS

Sunday	3:00 PM to 6:00 PM
Monday	7:30 AM to 5:00 PM
Tuesday	7:30 AM to 5:00 PM
Thursday	7:30 AM to 5:00 PM
Friday	7:30 AM to 3:30 PM



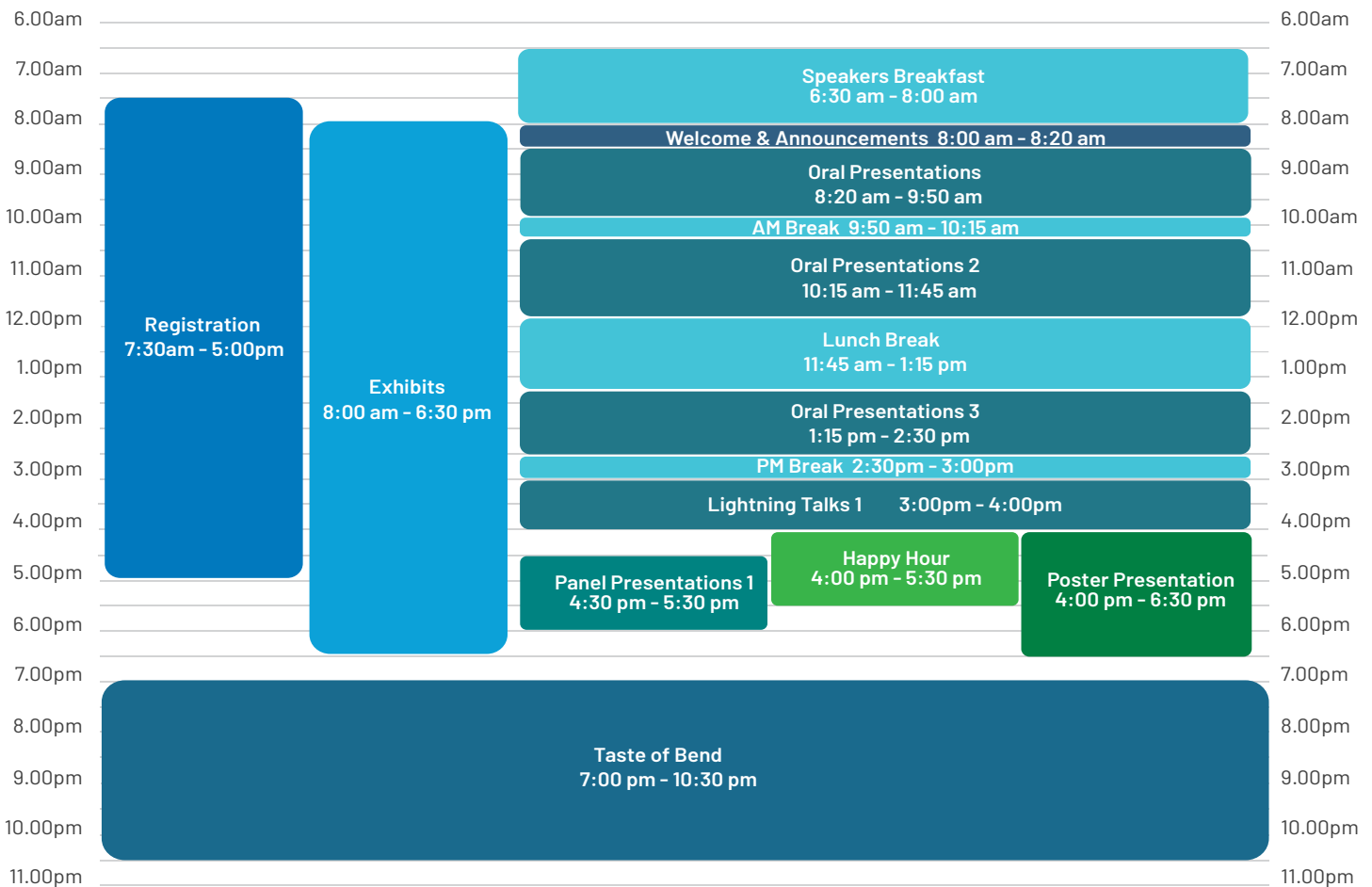


SCHEDULE AT A GLANCE

SUNDAY, OCTOBER 8, 2023

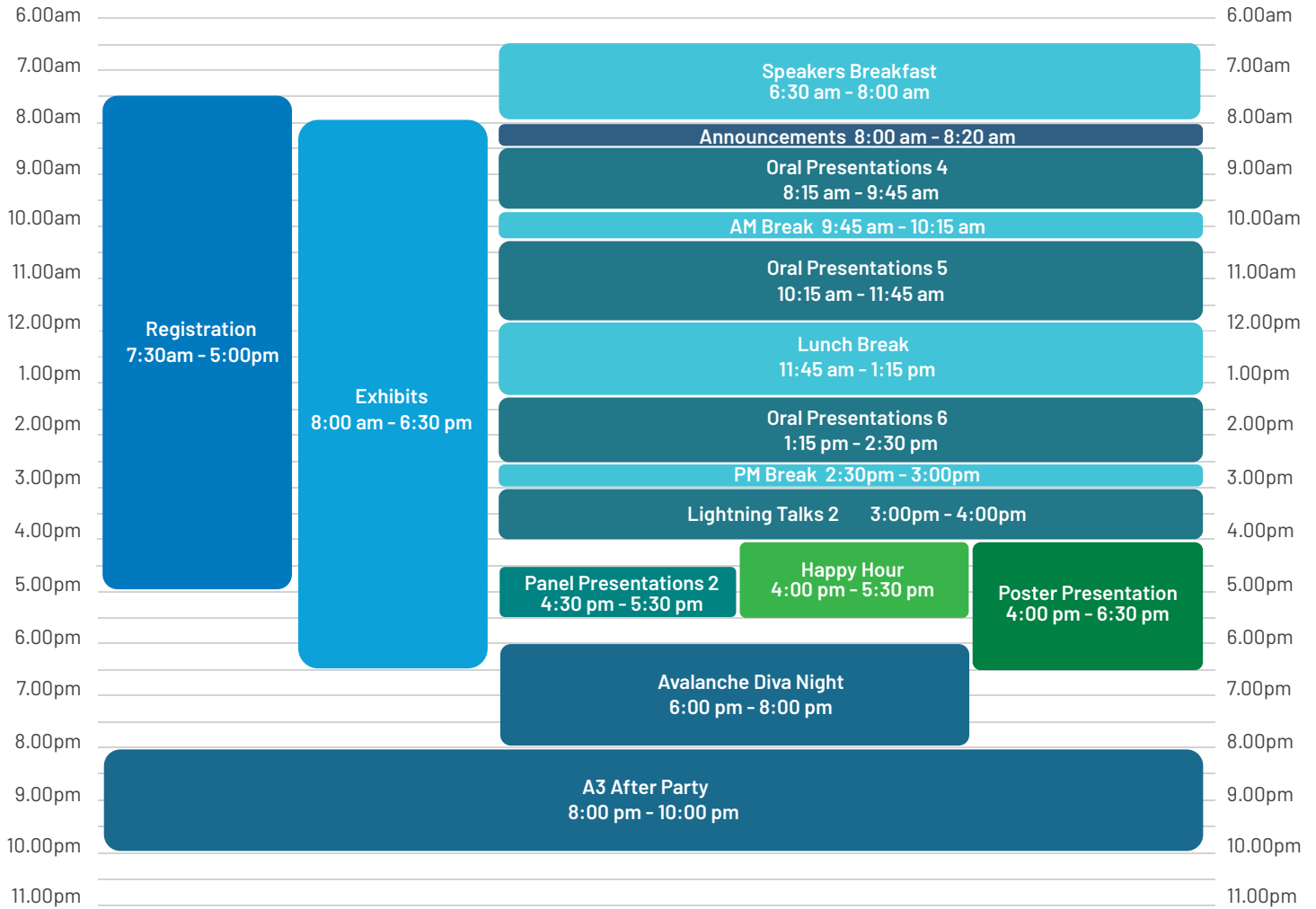


MONDAY, OCTOBER 9, 2023





TUESDAY, OCTOBER 10, 2023



WEDNESDAY, OCTOBER 11, 2023

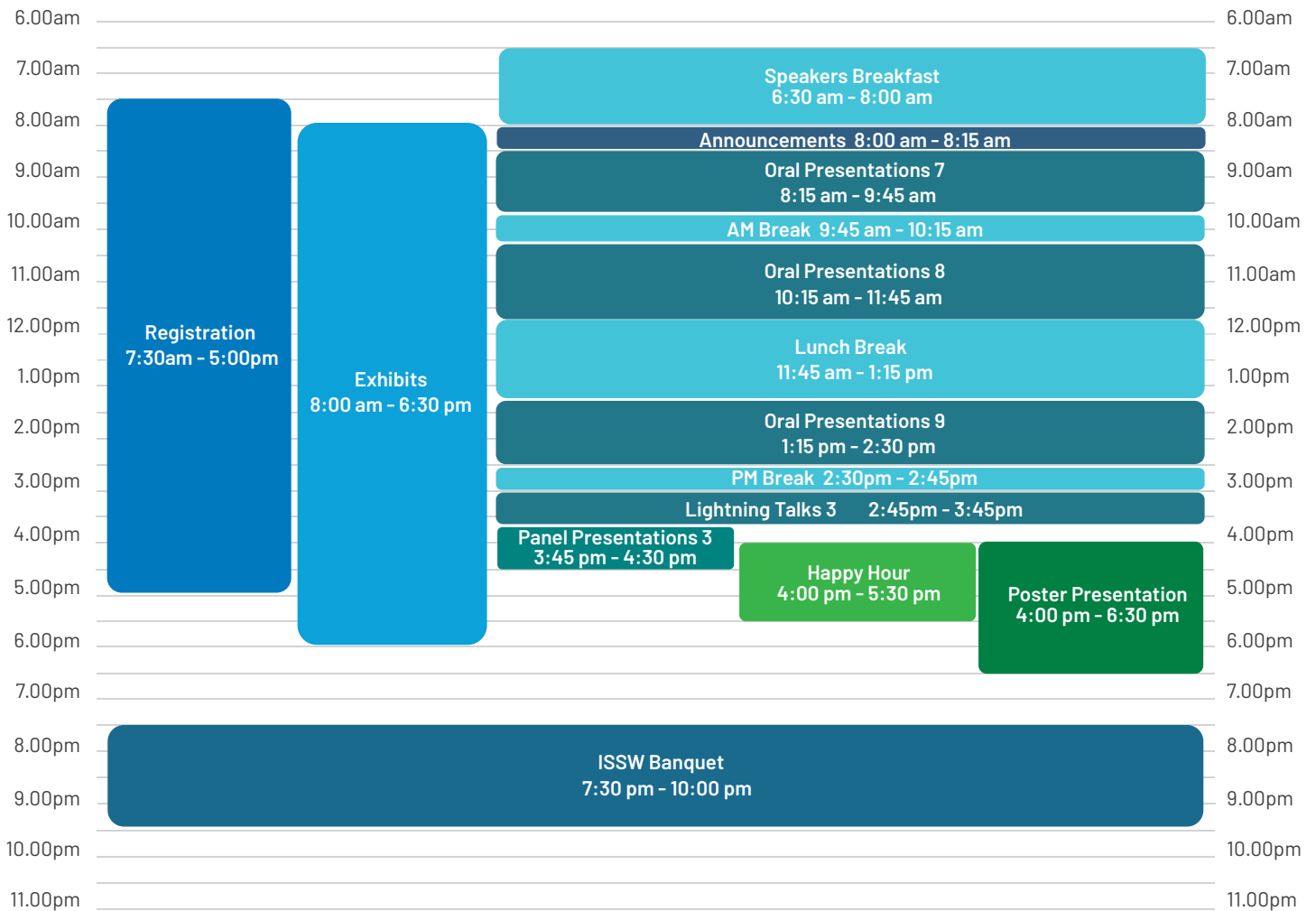
Get Outside Day

Movie Night

7:00pm - 8:30pm

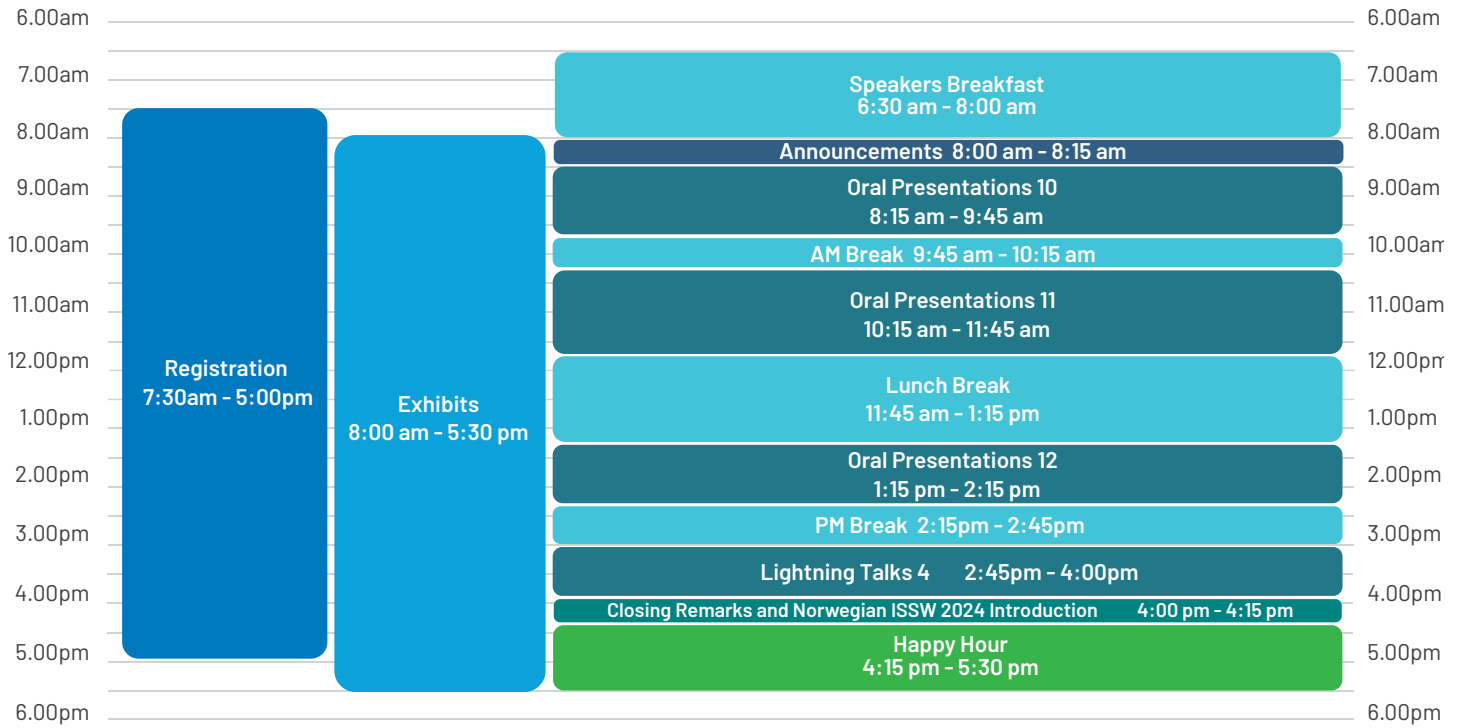


THURSDAY, OCTOBER 12, 2023





FRIDAY, OCTOBER 13, 2023



08 EXHIBITS & POSTER HALL



The exhibit hall will feature a live simulcast of the main sessions taking place in the Cascade Ballroom.

LOCATION: RIVERHOUSE EXHIBIT HALL
HOURS:

Sunday, October 8th

6:00pm – 8:00pm

Welcome Reception
sponsored by



Monday, October 9th

8:00am – 6:30pm

9:45am – 10:15am

Morning Cuppa Joe Break
sponsored by



4:00pm – 5:30pm

Happy Hour
sponsored by



2:30pm – 3:00pm

Afternoon Cuppa Joe Break

4:00pm – 6:30pm

Poster Session

Tuesday, October 10th

8:00am – 6:30pm

9:45am – 10:15am

Morning Cuppa Joe Break
sponsored by



2:30pm – 3:00pm

Afternoon Cuppa Joe Break

4:00pm – 5:30pm

Happy Hour
sponsored by



4:00pm – 6:30pm

Poster Session

Thursday, October 12th

8:00am – 6:30pm

9:45am – 10:15am

Morning Cuppa Joe Break
sponsored by



4:00pm – 5:30pm

Happy Hour
sponsored by



2:30pm – 2:45pm

Afternoon Cuppa Joe Break

4:00pm – 6:30pm

Poster Session

Friday, October 13th 8:00am – 4:15pm

9:45am – 10:15am

Morning Cuppa Joe Break

4:15pm – 5:30pm

Happy Hour

2:30pm – 2:45pm

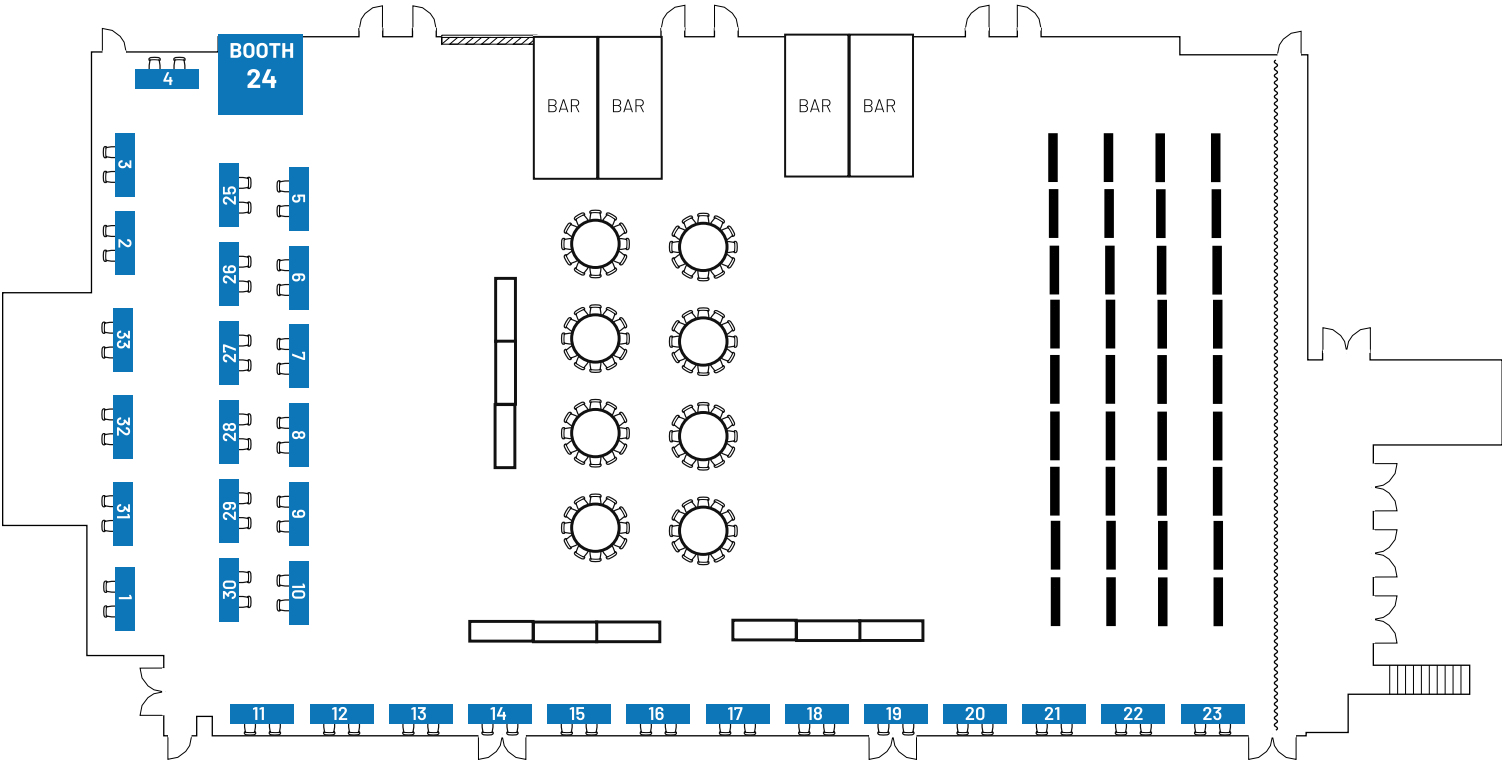
Afternoon Cuppa Joe Break



EXHIBIT & POSTER HALL FLOOR PLAN

Exhibitor	Table No.	Exhibitor	Table No.
AIARE	29	GEOPREVENT	10
Alpine Infrastructure	31	High Point Productions, dba Beacon Guidebooks	19
Alpine Solutions Avalanche Services	21	ISSW 2024 Tromsø	22
American Avalanche Association	11	Mammut	15
American Avalanche Institute	26	MND	30
Arc'teryx	04	MountainSafety.info	20
Back Country Access	09	onX Backcountry	32
beadedstream	28	Ortovox Sportartikel GmbH	03
Canadian Avalanche Association	18	Outdoor Engineers Inc.	23
Cautus Geo AS	25	Propagation Labs	06
CIL Explosives	01	RECCO Inc.	17
Dimension Supply Inc.	27	SAMS Enterprise	12
Earth Analytic, Inc.	07	Silverton Avalanche School	14
FPGA Company GmbH	02	Snow Scan	33
Frontline Mind	16	Snowbound Solutions LLC	05
Garmin USA, Inc	13	Wyssen USA, Inc	24
Geobrugg	08		

RIVERHOUSE EXHIBIT HALL (LOWER LEVEL)



- Exhibitor tables and booths
- Posters

EXHIBITOR LISTINGS

AIARE | Table 29



The American Institute for Avalanche Research and Education (AIARE) is a nonprofit educational organization whose mission is to prevent injuries and fatalities through a repeatable risk management process for backcountry users. AIARE develops and disseminates research-based avalanche recreational curriculum to over 120 Providers in the US, South America and Europe. In addition to recreational curriculum, AIARE offers professional (PRO 1 and PRO 2) and instructor training courses.

Alpine Infrastructure | Table 31



Alpine Infrastructure-Innovative avalanche solutions for every situation. Alpine Infrastructure designs and builds products to serve the avalanche industry, with direct input from avalanche professionals and programs. With several products currently in development, Alpine Infrastructure aims to increase safety and efficiency for those involved in avalanche work.

Alpine Solutions Avalanche Services | Table 21



Alpine Solutions is an industry leading snow avalanche consulting firm specializing in risk assessment, engineering protection, and avalanche safety programs. We work with a wide range of clients including highways, railways, ski areas, mining, hydroelectric, construction, parks, and townsites. Based in Canada, we have extensive experience in US (continental and Alaska), as well as Asia and South America.

American Avalanche Association | Table 11



The American Avalanche Association promotes and supports professionalism and excellence in avalanche safety, education, and research in the United States.

American Avalanche Institute | Table 26



Offering a systematic approach to backcountry travel since 1974 American Avalanche Institute teaches courses to beginning recreationists, introducing basic concepts for avalanche hazard mitigation, and travel techniques in avalanche terrain, as well as to industry professionals-including ski guides, ski patrollers and avalanche forecasters. Our avalanche training is a progression, where each course builds on knowledge gained from the previous course.



Arc'teryx | Table 04



Arc'teryx Equipment is a Canadian company based in the Coast Mountains, specializing in technical high-performance apparel and equipment. Our design process is connected to the real world, focused on delivering durable, unrivaled performance. We are problem solvers, always evolving and searching for a better way to deliver resolved, minimalist designs.

Backcountry Access (BCA) | Table 04



Backcountry Access (BCA) is North America's leading manufacturer of snow safety equipment, including Tracker transceivers, Float airbags, shovels, probes, and BC Link radios. Our mission is to save lives, not just sell products. We have always considered education to be just as important as the gear we make.

beadedstream | Table TBA



beadedstream is enabling anyone to collect data easily, from anywhere in the world. Our Digital Temperature Cables monitor ground temperature profiles and connect into our Data Loggers, which transmit data to the cloud. Applications include mine reclamation monitoring, permafrost characterization, acid mine/rock drainage and environmental conditions.

Canadian Avalanche Association | Table 18



The CAA is the self-regulating body for avalanche professionals in Canada. We offer specialized services and training to industry across Canada and the world. The CAA's highly customizable InfoEx platform provides structured record keeping, and allows for daily exchange of technical snow, weather, and avalanche information between subscribers.

Cautus Geo AS | Table 25



Cautus Geo is a Norwegian company specialized in automatic monitoring and early warning systems for natural hazards. We have for more than 10 years developed and deployed unique system for snow and avalanche warning.

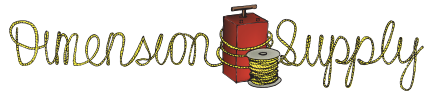
CIL Explosives | Table 01



CIL Explosives are the world largest supplier of Avalanche Control Explosives and Avalauncher systems. CIL has distribution locations in South America, North America and Europe. CIL gives back a percentage of its profits to help create scholarships to continue the professionalism of the avalanche workers who support us



Dimension Supply | Table 27



Dimension Supply is a full-service explosive distributor and manufacturer servicing the dimensional stone industry, industrial processes, law enforcement and specialty markets. We are also the sole supplier of the Kinepak® binary system, an industry standard for more than 50 years.

Earth Analytic | Table 07



Earth Analytic is a geospatial consulting firm based in Santa Fe, New Mexico. Our SmartMountain offering is a geospatial web and mobile application suite built on the ArcGIS platform that provides robust decision-support applications for avalanche professionals at more than 30 major ski areas, avalanche centers and transportation agencies.

FPGA Company GmbH | Table 02



FPGA Company offers to the snow researchers an efficient and accurate way to measure the snow density, LWC and snow structure. The SLF Snow Sensor and the InfraSnow SSA Sensor are hand-held devices to bring to the field at anytime. These sensors were developed in close collaboration with the SLF in Davos.

Frontline Mind | Table 16



We enable individuals, teams and organisations to develop resilience to survive and thrive in complex and turbulent times. Our passion is enabling individuals, teams and organisations to survive and thrive. We're called Frontline Mind because our niche is helping those professionals who work with skin in the game, where decision-making really matters, and where poor choices can lead to injury, death or severe adverse consequences. To help the people we care about worldwide, we created three state-of-the-art online programs covering resilience, recovery and leadership. Our programs are available on demand 24/7 - to help when you need it, where you need it.

www.frontlinemind.com

Garmin USA, Inc | Table 13



Engineered on the inside for life on the outside, Garmin products have revolutionized life for adventurers, athletes, and outdoor enthusiasts everywhere. Committed to developing products and services that enhance experiences and provide peace of mind, Garmin believes every day is an opportunity to innovate and a chance to beat yesterday.

www.garmin.com

Geobrugg | Table 08

Geobrugg has been developing and manufacturing protection solutions since 1951. High-tensile steel wire nets and matching services monitor and protect against natural hazards such as rockfall, landslides, debris flows, avalanches or coastal erosion. We ensure safety in mining and tunneling, motor sports tracks, in industry and in test facilities.

GEOPREVENT | Table 10

GEOPREVENT develops, installs and operates premium alarm and monitoring systems for natural hazards worldwide. We focus on customer-specific and highly reliable solutions based on cutting-edge technology. Our avalanche radars detect and map avalanches in all weather conditions in real-time and are designed to measure avalanche activity, verify avalanche control and automatically close transport routes. We currently operate more than 150 stations for road or railway operators, municipalities, ski resorts or scientific institutions.

High Point Productions, dba Beacon Guidebooks | Table 19

Beacon is devoted to providing critical avalanche terrain information to every backcountry skier and rider. Our products are tools to be used in the ski tour planning process as well as out in the field to ensure balanced and informed decision-making. Based in Gunnison, Colorado, founder and owner, Andy Sovick works in close collaboration with respected authors around the country to develop ground-sourced and highly curated topo maps and terrain atlases for various ski zones. Over the last eight years, these guidebooks and maps have gone from being a local secret to being used by avalanche professionals, guiding companies and schools worldwide. Every single ski zone and every ski descent we describe is analyzed for its ATES rating by the authors, and validated by colleagues and other professionals.

ISSW 2024 Tromsø | Table 22

The world's largest conference on snow and avalanches in 2024 will be held amongst the towering mountains of Tromsø, Northern Norway. The Arctic University of Norway, Norwegian Water Resources and Energy Directorate, Norwegian Geotechnical Institute and Norwegian Public Roads Administration makes up the local organizing committee, which is chaired by Rune Engeset.

<https://www.issw2024.com>

Mammut | Table 15



To create a world moved by mountains. Mountains move people like no other place on Earth. That is why our purpose is to create products that enable all outdoor enthusiasts to experience the power of the mountains. Since 1862, we have crafted products that redefine functionality and performance in the mountains.

MND | Table 30



As a pioneer and innovator of non-explosive preventive avalanche triggering systems for over 30 years and with its patented products Gazex, O'BelIX and DaisyBell, MND SAFETY has established itself as the world reference. Its expertise extends to the global management of this risk, thanks to a range of unique solutions for decision-making assistance and detection of avalanche activity.

MountainSafety.info | Table 20



The association MountainSafety.info includes the associative members International Federation of Mountain Guide Associations (IFMGA) and the scientific member SLF/WSL Swiss Institute for Snow and Avalanche Research. The NATO Center of Excellence of Mountain Warfare is an institutional affiliate. The International Climbing and Mountaineering Federation (UIAA) is in collaboration with MountainSafety.info.

The project has been initiated by Manuel Genswein and has evolved together with the "Best Practice in Avalanche Rescue" pioneer workgroup.

onX Backcountry | Table 32



onX Backcountry, a navigation App for outdoor winter enthusiasts. Features designed to help users make informed decisions in the backcountry. Including Slope Aspect, SNOTEL, Avalanche map markers, guidebook routes, aerial satellite, (OSM), ATES, and more. These features will provide users with intuitive tools to stay safe in the backcountry.

Ortovox Sportartikel GmbH | Table 03



Since the company was founded in 1980 in the south of Munich, our inner voice has supported us and defined our values. ORTOVOX has always stood for a sophisticated protection and comfort system for the mountains, characterized by the responsible treatment of people and nature. As a pioneer in the avalanche safety field, ORTOVOX has played a key role in the development of emergency equipment for mountain sports. Innovative products, but also targeted training measures, are valuable contributions to making mountain sports a little bit safer and to saving lives every day.

Outdoor Engineers Inc. | Table 23

Through out North America, Outdoor Engineers has made a name when it comes to Avalanche Guards. Implementing Avalanche triggering systems in various mountains and slopes to protect Ski resorts and Highways. We carry out installations and maintenance of systems in the hardest to reach and inaccessible terrains.

Propagation Labs | Table 06

We develop measurement and operational technology for snow professionals, most notably the Snow Scope Probe, a digital penetrometer. Our goal is to augment traditional methods with modern engineering to provide higher quality snowpack data, faster data collection times, and deeper analysis capabilities.

www.propagationlabs.com

RECCO Inc. | Table 17

RECCO® rescue technology makes outdoor enthusiasts searchable to rescuers in case of an avalanche accident or when lost in the outdoors. The technology builds on a two-part radar system. Rescuers carry RECCO detectors that send out search signals which are echoed by RECCO reflectors, carried by the user.

SAMS Enterprise | Table 12

SAMS Enterprise is the commercial arm of Scottish Association for Marine Science (SAMS), which is a leading international research institute with specialism in polar science. Our lightweight, portable Snow Ice Mass Balance Apparatus (SIMBA) supports avalanche forecasters by remotely monitoring the structure and composition of snowpacks accurately in real time.

Silverton Avalanche School | Table 14

Since 1962, Silverton Avalanche School has educated backcountry travelers about the hazards of the mountains. As the oldest, continuously operating snow safety and avalanche education program in the United States, SAS is dedicated to empowering students with tools, technologies, tactics and techniques to make competent decisions in consequential mountain terrain.

Snow Scan | Table 33

**Snowbound Solutions LLC | Table 05****SNOWBOUND
SOLUTIONS LLC**

Snowbound Solutions supports avalanche forecasting through science and technology. We listen to user needs and build valuable solutions to avalanche monitoring, weather and data management issues. With our complete platform, SnowObs, users easily monitor avalanche activity, weather and observations efficiently and quickly.

<https://snowboundsolutions.com>

Wyssen USA, Inc. | Booth 24**avalanche
control**

Wyssen Avalanche Control is a 3rd generation Swiss family company with subsidiaries in Austria, Norway, Canada, USA, and Chile. We develop and build RACS, detection systems, and software for risk management. With our innovative solutions, we protect human lives and infrastructure worldwide. WAC has installed over 700 Wyssen Avalanche Towers and 85 detection systems worldwide.

09 SOCIAL EVENTS

WELCOME RECEPTION

October 8, 2023

6:00pm – 8:00pm

Location: Riverhouse on Deschutes, Exhibit Hall

**ISSW Name badge required, included in Full delegate registration*

We are excited to be reunited in-person for a week of networking, presentations, and panel discussions. Join us at the Welcome Reception as we officially kick off the start of ISSW 2023. Reconnect with old friends and meet new ones over snacks and drinks.

Welcome to Bend, Oregon!

sponsored by



TASTE OF BEND

October 9, 2023

7:00pm – 10:30pm

Location: 10 Barrel Brewing Eastside (62950 NE 18th St)

**Event ticket and 40 USD Prepayment required*

Welcome to the Craft Beer Capital of the West! Discover Bend, Oregon by discovering its well-known brews. The entire 10 Barrel Eastside Pub will be filled with snow and avalanche professionals from all over the world. 10 Barrel will give you a taste of this scene while offering a hangout space filled with the ISSW community. Entrance also includes one drink ticket and dinner.

sponsored by



AVALANCHE DIVA NIGHT

October 10, 2023

6:00pm – 8:00pm

Location: **Crux Fermentation Project (50 SW Division St)**

**Event ticket and 40 USD Prepayment required*

The Avalanche Divas began as a ladies' night at ISSW 2006 in Telluride, CO. Following the event's success, ISSW 2008 in Whistler, BC, hosted the premier of the "Avalanche Divas" as a way to recognize female-identifying avalanche professionals who have made significant contributions

to the field of snow and avalanches. Since then, this program has honored women from many countries who have contributed to all aspects of our profession. With the support of the ISSW, The American Avalanche Association, and the avalanche community, the Diva's has grown significantly. We can now also offer travel grants to provide financial support to female presenters at ISSW. The Avalanche Diva's Night is also an opportunity for individuals who identify as women and non-binary in the field of snow and avalanches to gather for a night of networking and information sharing. Please join us to support and empower these individuals who are crossing boundaries in the field of snow and avalanches. Included during the event are plenty of Hors d'oeuvres, a drink ticket, and a raffle ticket, and all proceeds go directly back into future Avalanche Diva's events and programs.

sponsored by



A3 AFTER PARTY

October 10, 2023

8:00pm – 10:00pm

Location: **Crux Fermentation Project (50 SW Division St)**

**Event ticket and 10 USD Prepayment required*

The A3 After Party is open to all attendees and takes place immediately after the Diva Night. Come hang with the

American Avalanche Association for the official "A3 AFTER PARTY" following DIVA night at Crux. Your first beverage is included in your \$10 cover, and we promise funky tunes and great conversation. There's even a rumor that Crux is brewing up a special beer just for this occasion, so you won't want to miss it.

See you there!

sponsored by



AMERICAN
AVALANCHE
ASSOCIATION

ON  BACKCOUNTRY



ISSW MOVIE NIGHT

October 11, 2023

7:00pm – 8:30pm

Location: Tower Theater (835 NW Wall St)

**Event ticket and 10 USD Prepayment required*

The ISSW Movie Night will feature the film, “To the Hills & Back” by Mike Quigley. This film takes place at a remote backcountry cabin, where a veteran mountain guide and his daughter connect and reflect upon a lifetime in the mountains. A torch is being passed within their family’s legacy of guides as they discuss the history of those that have come and gone, some too soon. Check out the film’s trailer [here](#).



Post-film discussion: Making sense of joy and tragedy in the mountains.

Moderator: Drew Hardesty

Panelists: Brad White, Doug Workman and Zinnia Wilson

Conversation: How do we reconcile joy and tragedy? What lessons can we learn and pass on to the next generations? Do we actually learn these lessons? Why or why not?

ISSW BANQUET- BEYOND THE SNOW: TALES FROM AVALANCHE ‘BOOMERS’

October 12, 2023

7:30pm – 10:00pm

Location: Cascade Ballroom

**Event ticket and 100 USD Prepayment required*

Join us on our final night at ISSW as we close out a week of great programming and strong connections made over a three-course plated dinner. This evening will feature a moderated panel discussion with Karl Birkeland, Lynne Wolfe, Bruce Jamieson, and Jürg Schweizer.





GENERAL INFORMATION

A background image of a snowy mountain landscape. The foreground shows a dense forest of evergreen trees covered in snow. In the background, a large, snow-capped mountain peak rises against a clear blue sky. The lighting suggests a bright, sunny day.

ABOUT BEND

Bend is known for being an outdoor recreation mecca which pairs nicely with its seemingly endless supply of breweries. We can't wait to share it with the snow science community! We have left Wednesday October 11 free for ISSW participants to explore Bend through one of the handful of guided tours. We aren't providing guided tours, however, we have listed options on the website of companies people can contact on their own for tours, shuttles, guiding. From rock climbing, bicycling, city tours, or sampling local brews, there is something for everyone in Bend.

For more information, check out: www.issw2023.com/field-trips

ACCESS/SECURITY

Name Badges will be provided to all delegates and participants and can be picked up at the ISSW2023 Registration Desk. Please wear and ensure your name badge is always visible as it is your admission pass to all sessions, the Exhibit & Poster Hall, and Social Events. Delegates will not be able to access the congress meeting space without their badge. There is a 100 USD reprint fee for any lost or misplaced badge.

OFFICIAL LANGUAGE

The official language of the ISSW2023 Congress is English. All sessions will be conducted in English.

LOST PROPERTY

Please report any lost or unattended items immediately to the ISSW2023 Registration Desk. Should you lose anything while at ISSW2023, please enquire at the Registration Desk where any recovered lost property will be held. At the end of the conference, all unclaimed lost and found items will be given to The Riverhouse on the Deschutes.

REFRESHMENT BREAK

Location: Exhibit Hall
October 9, 10, 12, 13

Morning Cuppa Joe Break	9:45am – 10:15am
Afternoon Cuppa Joe Break	2:30pm – 3:00pm
	<i>*October 12 – 2:30pm – 2:45pm</i>

REGISTRATION & ISSW MERCHANDISE DESK HOURS

Location: Riverhouse on the Deschutes Convention Center Lobby

Sunday, October 8	12:00pm – 7:30pm
Monday, October 9	7:30am – 5:00pm
Tuesday, October 10	7:30am – 5:00pm
Wednesday, October 11	Closed
Thursday, October 12	7:30am – 5:00pm
Friday, October 13	7:30am – 5:00pm

WIFI

Complimentary wifi is available throughout the Riverhouse Convention Centre

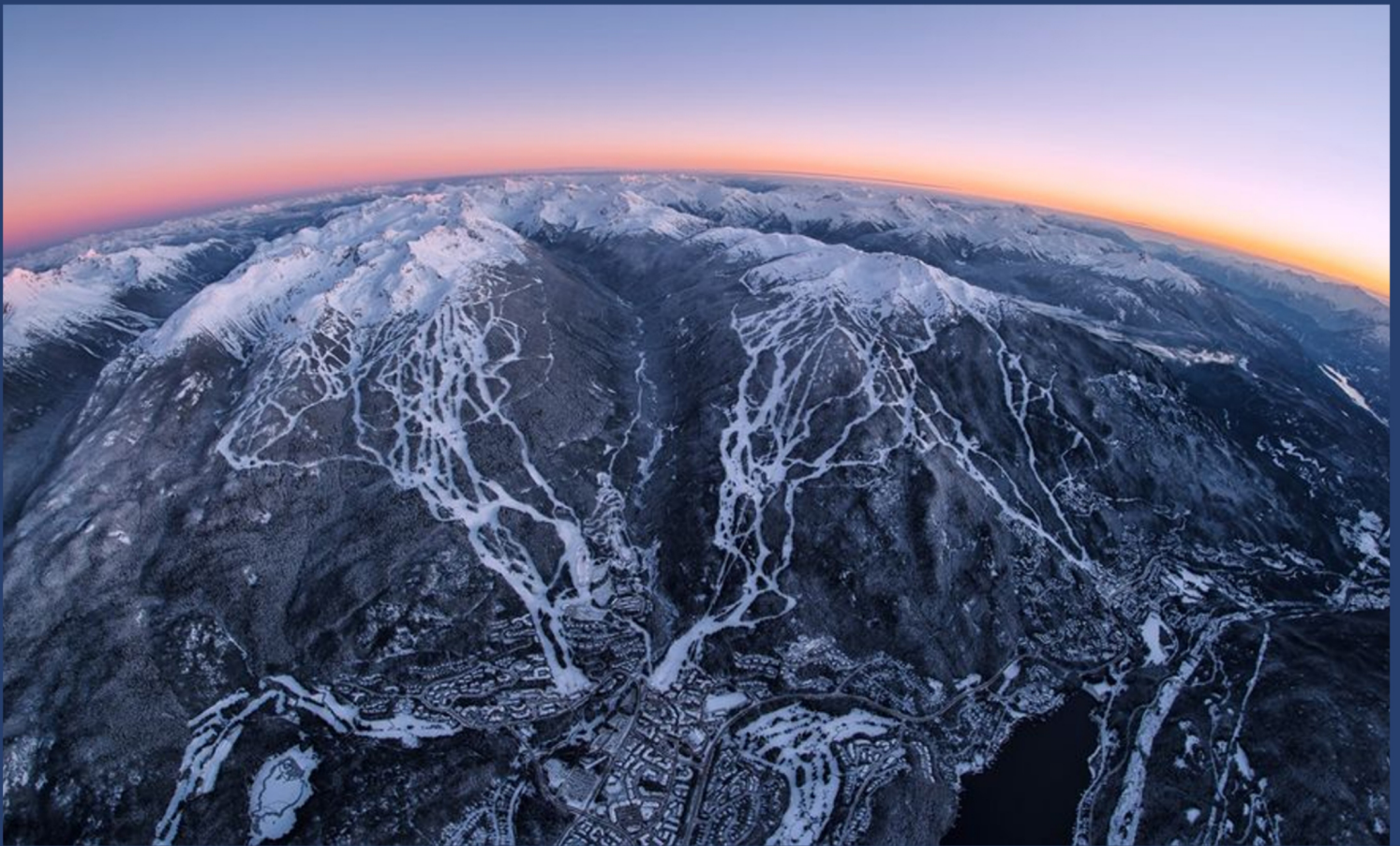
DISCLAIMER

All reasonable endeavors will be made to hold the ISSW2023 and to present the program as scheduled under circumstances which assure the comfort and safety of the Conference Participants. However, the ISSW and its branches, and their respective directors, officers, employees, representatives or agents, shall not be liable in any manner whatsoever to any person as a result of the cancellation of the Conference or any of the arrangements, programs or events connected therewith; nor shall any of the foregoing entities or persons be liable in any manner whatsoever for any loss, injury, damage or inconvenience which may be suffered by any person while travelling to or from, or during such person's presence in, Bend in connection with the Conference. Participants are advised to consider procuring their own insurance against any such occurrences.



SEPT 28 - OCT 2, 2026

A MERGING OF THEORY & PRACTICE



Whistler Blackcomb

COME JOIN US IN WHISTLER, BC



SCAN ME

INTERESTED IN BEING A SPONSOR
OR EXHIBITOR IN 2026?

SCAN OR EMAIL US AT ISSW2026@GMAIL.COM



@ISSW2026WHISTLER

IBTP Koschuch e.U.

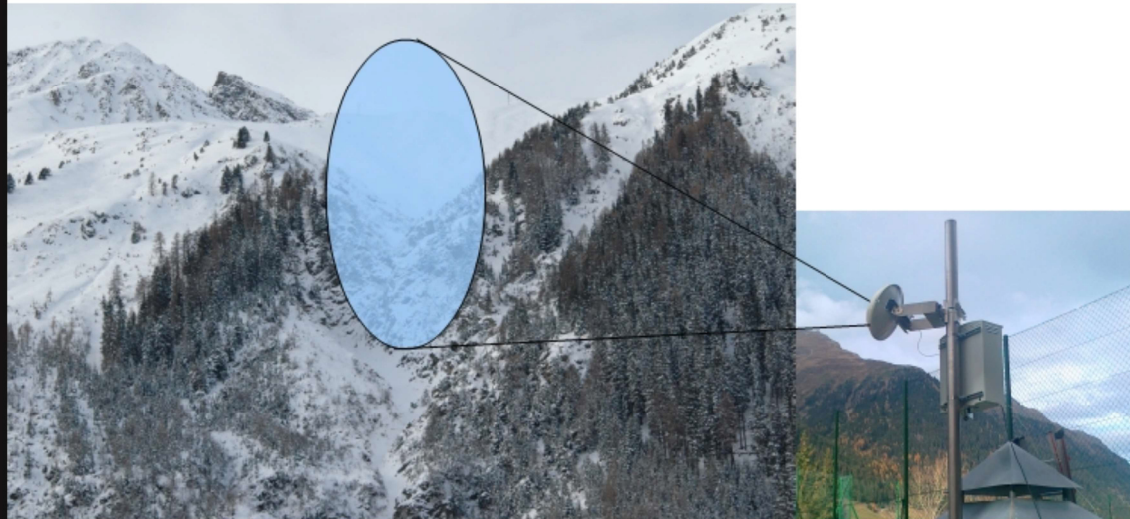
IBTP Koschuch e.U

Your expert in
technical physics
for consulting,
planning,
calculation and
development!

We build your
Avalanche Radar
exactly to your need

Unique and 12 years proven Pulse Doppler RADAR-Technology for:

- **Avalanche Detection**
- **Debris Flow Monitoring**
- **Multi Target Detection**
- **Water Level Measurement**
- **Rock Fall Detection**
- **Heavy Rain Measurement**



IBTP Koschuch e.U.
Consulting Engineer in Technical Physics

Langegg 31
A-8463 Leutschach an der Weinstrasse
Austria
Phone: +43 699 18 44 85 42
office@ibtp-koschuch.com

www.ibtp-koschuch.com
www.avalancheradar.com