



## Icebreaker

Alfred-Wegener-Institut  
A 43 Telegrafenberg  
14473 Potsdam

## Conference Dinner

Ristorante il Teatro  
Schiffbauergasse 12  
14467 Potsdam

In case of **emergency**: 110

## Practical Information

- All lectures take place in **Lecture Hall H**.

- **How to get to the Research Unit in Potsdam by bus**

The AWI Research Unit Potsdam is located on the Telegrafenberg, the historic science campus 'Albert Einstein', south of Potsdam's city centre. From the railway station 'Potsdam Hauptbahnhof', a 20 minute walk takes you to the campus on the Telegrafenberg. Alternatively, a taxi takes less than 5 minutes and costs approximately 10 Euro. Local public transport by **line 691** operates between 6:15 and 9:35 am and 1:15 and 7:15 pm. There are two AWI buildings on the campus. The old one (A43) is located on the right-hand side, about 50 m from the entrance of the campus, and the main building (A45) is located about 200 m left of the campus' gateway.

- **Taxi**: Hallo Taxi Potsdam: 0331 600900; Taxibetrieb Oliver Frenzel 0331 60060072

- The Canteen on campus takes **no cash!**

- **Café Fröhlich** is located right on campus and is perfect for a short break in between. With great coffee, fresh snacks, and a cozy atmosphere, it is highly recommended.



## Albert Einstein Science Park

# International Symposium on Ice Drilling



# CONFERENCE PROGRAM

14 - 19 September 2025

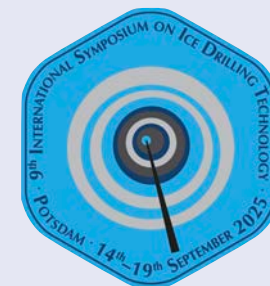
## Contact Information

9th\_IDT@awi.de

[https://events.hifis.net/e/9th\\_IDT](https://events.hifis.net/e/9th_IDT)

## Conference-Address

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14473 Potsdam



Monday   15.09.	Tuesday   16.09.	Wednesday   17.09.	Thursday   18.09.	Friday   19.09.
<b>09:00 - 09:45</b>   Social Event: Welcome and general introduction	<b>09:00 - 09:05</b>   Social Event: General announcement	<b>09:00 - 09:05</b>   Social Event: General announcement	<b>09:00 - 09:05</b>   Social Event: General announcement	<b>09:00 - 09:05</b>   Social Event: General announcement
<b>09:45 - 10:05</b>   THE CURATION OF ICE CORES AT AWI - Johannes Freitag	<b>09:05 - 09:25</b>   PROGRESS AND LEARNINGS OF THE ICE AND SUBGLACIAL BEDROCK DRILLING PROJECT IN PRINCESS ELIZABETH LAND, EAST ANTARCTICA - Nan Zhang	<b>09:05 - 09:25</b>   Resilient gear design for deep ice drilling systems - Johannes Lemburg	<b>09:05 - 09:25</b>   The CASCA project and its initial development for clean access to Subglacial Lake Cheongsuk, East Antarctica - Mincheol Kim	<b>09:05 - 09:25</b>   Deep Rapid Access Drilling: Downhole Drilling Parameter Measurement System Design - Xinyu Miao
<b>10:05 - 10:25</b>   THE BELDC ICE CORE PROCESSING WORK FLOW - Manuela Krebs	<b>09:25 - 09:45</b>   A Newly Developed Multi-Process Drilling System(MPDS) For Subglacial Bedrock Sampling Beneath Polar Ice Sheet: DESIGN AND PRELIMINARY TEST - Yazhou Li	<b>09:25 - 09:45</b>   The challenges involved in developing a power supply, communication system and drive unit for a deep ice core drilling rig - Matthias Hüther	<b>09:25 - 09:45</b>   TRIPLE-ICECRAFT: A Platform for Scientific Access To Deep Ice - Antarctic Results And Future Opportunities - Clemens Espe	<b>09:25 - 09:45</b>   BigRAID – an 11.2” diameter version of the BAS Rapid Access Isotope Drill - Scott Polfrey
<b>10:25 - 10:45</b>   Coffee break I	<b>09:45 - 10:05</b>   The importance of preserving basal ice under appropriate subdued red - orange - light conditions for reconstructing past ice - sheet retreats and advances - Julien Westhoff	<b>09:45 - 10:05</b>   DRILLHEAD CONFIGURATIONS AND MAINTENANCE IN THE BEOI'S DEEP ICE CORE DRILLING PROJECT - Gunther Lauer	<b>09:45 - 10:05</b>   Iterative Improvements to the Chip Transport Pump Used in the Beoi's Deep Ice Core Drilling Project - Matthias Hüther	<b>09:45 - 10:05</b>   Fast Dry Borehole Drilling and Bulb Formation with the Askaryan Radio Array Hot Water Drill - Jacob Nesbit
<b>10:45 - 11:05</b>   Field Processing of Ice Cores at Dome Fuji: An Overview of Three Drilling Periods and the Ongoing Third - Phase Project - Shuji Fujita	<b>10:05 - 10:25</b>   TRIPLE AND THE RETRIEVABLE MELTING PROBE TRIPLE - ICECRAFT - Dirk Heinen	<b>10:05 - 10:25</b>   700 DRILL DEVELOPMENT AND FIELD PERFORMANCE - Jay Johnson	<b>10:05 - 10:25</b>   DEEP RAPID ACCESS DRILLING: SURFACE CONTROL SYSTEM DESIGN - Zhao kang Shen	<b>10:05 - 10:25</b>   Tere Tipako Tio Rapid Ice Sampling Aotearoa - Jessica MacFarquhar
<b>11:05 - 11:25</b>   CoreCaster: Probabilistic Simulator for Ice Drilling Campaign Planning - James Veale	<b>10:25 - 10:45</b>   Coffee break I	<b>10:25 - 10:45</b>   Coffee break I	<b>10:25 - 10:45</b>   Coffee break I	<b>10:25 - 10:45</b>   Coffee break I
<b>11:25 - 11:45</b>   REWIND: BRITISH ANTARCTIC SURVEY ICE CORE DRILLING PROJECT - Emma Fisher	<b>10:45 - 11:05</b>   Inclinometer Applications Using Encapsulated Accelerometer Data Calibrated For Varying Megapascal Pressure And Cryo - Temperature Conditions - Mohammad Vafadarmianvelayat	<b>10:45 - 11:05</b>   Increasing The Drilling Speed In Beoi Deep Ice Coring By Drilling Ice Cores Of Up To 4.5 Metres In Length - Matthias Hüther	<b>10:45 - 11:05</b>   STUDY ON THE FORMATION MECHANISM OF DEEP HOT-WATER DRILLING BACKWATER CAVITY - Liangyu Wang	<b>10:45 - 11:05</b>   Rapid Ice Drilling And Continuous Coring With Air Reverse Circulation In Antarctica: System Design And Research Progress - Rusheng Wang
<b>11:45 - 12:05</b>   Shallow ice core recovery supported by South Korean icebreaker RV ARAON: RAICA Canisteo Peninsula, West Antarctica - Peter Neff	<b>11:05 - 11:25</b>   Three generations of borehole loggers - Dorthe Dahl-Jensen	<b>11:05 - 11:25</b>   EGRIP Drilling 2016-2024 - Trevor Popp	<b>11:05 - 11:25</b>   Design And Testing Of Aramid/Nylon Reinforced Composite Pipes For Large-Depth Hot Water Drilling - Zaixing Zhang	<b>11:05 - 11:25</b>   Drilling for the Radio Neutrino Observatory in Greenland (RNO-G): field performance of BigRAID - Delia Tosi
<b>12:05 - 12:30</b>   Coffee break II	<b>11:25 - 11:45</b>   The Danish Replicate Drilling System – Results from the First Field Test - Grant Vernon Boeckmann	<b>11:25 - 11:45</b>   Selection of Ice Core Drilling Sites in the Grove Mountains Blue ice Area, East Antarctica - Xueyan Tang	<b>11:25 - 11:45</b>   Resurrection of the Enhanced Hot Water Drill for the IceCube Upgrade Project - Jake Nesbit	<b>11:25 - 11:45</b>   RAID - New Opportunities For Deep Ice-Sheet Research And Rapid Subglacial Access Drilling - Jay Johnson
<b>12:30 - 12:50</b>   RAPID DRILLING THROUGH DEEP ICE INTO BEDROCK IN ANTARCTICA: RESEARCH PROGRESS AND FUTURE PLAN - Rusheng Wang	<b>11:45 - 12:05</b>   THE BELDC DEEP DRILLING OPERATION TO BEDROCK - Frank Wilhelms	<b>11:45 - 12:05</b>   Ice core drilling at a temperate glacier site: Combatant Col, Mt. Waddington, BC, Canada (2006 - 2023) - Peter Neff	<b>11:45 - 12:05</b>   General Concept And Laboratory Testing Of A Deep Hot-Water Drilling System For Accessing Subglacial Lake Qilin In East Antarctica - Pavel Talalay	<b>11:45 - 12:05</b>   Using Snow As Construction Material For Underground Trenches, Cable Ducts, Snow Foundations And Aircraft Handling Areas - Jørgen Peder Steffensen
<b>12:50 - 13:10</b>   WINKIE DRILL - Development And Drilling In West Antarctica - Elliot Moravec	<b>12:05 - 12:25</b>   Coffee break II	<b>12:05 - 12:25</b>   Coffee break II	<b>12:05 - 12:25</b>   Coffee break II	<b>12:05 - 12:25</b>   Coffee break II
<b>13:10 - 13:30</b>   GREENDRILL PROJECT – SUBGLACIAL ROCK CORING IN GREENLAND - Tanner Kuhl	<b>12:25 - 12:45</b>   Drilling 613 m through Muller's Ice Cap, Arctic Canada - advances in drill equipment and camp infrastructure - Julien Westhoff	<b>12:25 - 12:45</b>   UNIQUE CHALLENGES OF DRILLING OLD, SHALLOW ICE AT ALLAN HILLS - Andrew Haala	<b>12:25 - 12:45</b>   WINCH AND HOSE SYSTEM OF LARGE-DEPTH HOT WATER DRILL - Bing Li	<b>12:25 - 12:45</b>   Development Overview of Power Supply and Control Units for Shallow Icecore Drilling Winches at AWI (~2010-2025) - Benjamin Brody
<b>13:30 - 14:30</b>   Lunch break	<b>12:45 - 13:05</b>   A NEW DYNAMOMETER FOR TESTING ICE CORE DRILL MOTORS AND GEARS - Matthias Hüther	<b>12:45 - 13:05</b>   Development and Field Deployment of the HWD700 Hot Water Drill for Subglacial Instrumentation on a Land-Terminating Glacier of the Greenland Ice Sheet - Luc Piar	<b>12:45 - 13:05</b>   British Antarctic Survey, Recent Hot Water Drilling Activities - Paul Anker	<b>12:45 - 13:05</b>   ADVANCEMENTS IN DRILL SYSTEM ELECTRONICS - Umberto Stefanini
<b>14:30 - 14:35</b>   A simple approach to field sampling ice cores for stable water isotope analysis - Vasileios Gkinis	<b>13:25 - 14:30</b>   Lunch break	<b>13:05 - 13:25</b>   -	<b>13:05 - 13:25</b>   ADVANCING SUBGLACIAL SCIENCE: A BRIEF HISTORY OF HOT WATER DRILLING AT BRITISH ANTARCTIC SURVEY - Keith Makinson	<b>13:05 - 13:25</b>   HIGH-ALTITUDE THERMAL DRILLING - Elliot Moravec
<b>14:35 - 14:40</b>   Design and Development of Rapid Ice Sampling Devices - Jessica MacFarquhar	<b>14:30 - 14:35</b>   THE DESIGN AND SPECIFICATIONS OF A VERSITILE “MINI LOGGER” - Kevin Nikolaus	<b>13:25 - 14:30</b>   Lunch break	<b>13:25 - 14:30</b>   Lunch break	<b>13:25 - 14:30</b>   Lunch break
<b>14:40 - 14:45</b>   AN OVERVIEW OF SHALLOW ICE CORES ALONG THE TRANSECT FROM COAST TO DOME A, EAST ANTARCTICA - Guifao Shi	<b>14:35 - 14:40</b>   DEPTH - DEPENDENT ICE CREEP AT PRINCESS ELIZABETH LAND, EAST ANTARCTICA - Jialin Hong / Yazhou Li	<b>14:40 - 17:00</b>   Social Event: Excursion Telegraphenberg - Wissenschaftspark Albert Einstein	<b>14:30 - 15:15</b>   Social session - Topic I tbd.	<b>14:30 - 15:15</b>   Social session - Topic V tbd.
<b>14:45 - 14:50</b>   A SHALLOW WET DRILL FOR IMPROVED CORE QUALITY IN BLUE ICE - Barbara Birrellella	<b>14:40 - 14:45</b>   NEW JLU MULTI - ARM LOGGER AND FIELD TESTING AT THE BEDROCK BOREHOLE IN PRINCESS ELIZABETH LAND, EAST ANTARCTICA - Bo Han			
<b>14:50 - 14:55</b>   Ice Core Drill Head Cutting Power Directly Measurement and Evaluation of Slotting Cutter - Ziyang Wu	<b>14:45 - 14:50</b>   A PRESSURE - RESISTANT SELF - CONTAINED OFFLINE TEMPERATURE MEASUREMENT DEVICE FOR VARIOUS POLAR ICE BOREHOLE ENVIRONMENTS - Ximu Liu			
<b>14:55 - 15:00</b>   THE AAD MILLION YEAR ICE CORE (MYIC) DEEP DRILL SYSTEM - Adam Treverrow	<b>14:50 - 14:55</b>   SIMILARITY - BASED MODEL OF EXPERIMENTS FOR ANALYZING FREEZING AND MELTING IN HOT WATER DRILLED BOREHOLES - Xianhe Zheng			
<b>15:00 - 15:05</b>   CHALLENGES IN ICE CORE DRILLING ON TEMPERATE ICE CAPS - Thorsteinn Thorsteinnsson	<b>14:55 - 15:00</b>   DEVELOPMENT OF A LIGHTWEIGHT HOT WATER DRILL AND BOREHOLE IN-SITU OBSERVATION SYSTEM - Ting Wang			
<b>15:05 - 15:10</b>   BASAL ACCESS SUBGLACIAL EXPLORATION (BASE) DRILL DEVELOPMENT - Tanner Kuhl	<b>15:00 - 15:05</b>   ANTI - TORQUE SYSTEMS OF HOT - WATER ICE - CORING DRILLS WITH POSITIVE DISPLACEMENT MOTOR - Yang Yang			
<b>15:10 - 15:15</b>   STUDIES OF THE SKAFTÁRKATLAR SUBGLACIAL LAKES, VATNAJÖKULL ICE CAP, ICELAND - Thorsteinn Thorsteinnsson	<b>15:05 - 15:10</b>   Large - Diameter Firm Drilling with the IceCube Independent Firm Drill - Jake Nesbit			
<b>15:15 - 15:20</b>   Model construction and mechanism analysis on subglacial bedrock core breaking during hydraulic reverse circulation continuous coring - Zhihao Cui / Rusheng Wang	<b>15:10 - 15:15</b>   The ISP - CNR Ice Core Drilling System: Addressing Firm Aquifers From Arctic To High - Altitude Glaciers - Daniele Zannoni			
<b>15:20 - 15:25</b>   UNIQUE IDP SUB-ICE DRILLING YIELDS SUCCESS FOR SCIENCE IN GREENLAND - Elliot Moravec	<b>15:15 - 15:20</b>   REPLACEABLE CUTTER INSERTS – PRELIMINARY RESULTS - Andrew Haala			
<b>15:25 - 15:30</b>   Study on Sediment Coring Techniques in Antarctic Subglacial Water Environment - Ting Wang	<b>15:20 - 15:25</b>   ELECTRONICS IN THE BOREHOLE - Umberto Stefanini			
<b>15:30 - 15:35</b>   Diagnostics for Drilling Fault Prediction in Planetary Drills - Sarah Boelter	<b>15:25 - 15:30</b>   INFLATABLE TENT, INITIAL FIELD RESULTS - Grant Vernon Boeckmann			
<b>15:35 - 15:40</b>   DESIGN AND EXPERIMENTAL STUDY OF A PENDULUM - TYPE RECOVERABLE THERMAL MELT PROBE FOR VERTICAL ICE DRILLING IN POLAR REGIONS - Xiaobing Li	<b>15:30 - 15:35</b>   Traverse, modular system, and drill camp operations for CASCA clean hot water drill - Hoje Kwak	<b>18:00 - 22:00</b>   Social Event: Conference dinner	<b>16:00 - 16:30</b>   Coffee break III	<b>16:00 - 16:30</b>   Coffee break III
<b>15:40 - 15:45</b>   A Compact Autonomous Melting Probe for Subsurface Sensor Deployment - Fabian Schöttler	<b>15:35 - 15:40</b>   DEEP SUBGLACIAL LAKE EXPLORATION VIA RECAS SONDE INTEGRATED WITH HOT - WATER DRILLING SYSTEMS - Jialin Hong / Ting Wang			
<b>15:45 - 18:00</b>   Poster sessions (Ice core handling, mechanical ice drilling, subglacial drilling and sampling, probes, rapid access ice drilling & <b>16:00 - 16:30</b>   Coffee break III	<b>15:40 - 15:45</b>   Rapid Access Ice Drilling To Recover Bedrock Material - Robert Mulvaney			
	<b>15:40 - 18:00</b>   Poster sessions (Borehole logging and in - situ observations, hot water drilling, complicated conditions, special aspects, logistics, sampling and clean technologies) <b>16:00 - 16:30</b>   Coffee break III			
			<b>17:15 - 18:00</b>   Social session - Topic IV tbd.	<b>17:15 - 18:00</b>   Social session - Topic VIII tbd.