Academia Raetica
SWITZERLAND

10th Conference Graubünden forscht

CC Davos, Hall Aspen | November 6-7, 2026

Mittag der Forschung Science Noon

November 7 | 11:45 AM to 2:00 PM

Program

Education and research. graubünden

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Friday, November 6, 2026

08:00-09:00 Registration & “Znüni”

Aspen A

09:00-09:20 Welcome and opening

Britta Allgöwer	President Academia Raetica
Valérie Favre Accola	Deputy Mayor of the Municipality of Davos and designated Member of Government & Head of the Department of Education, Culture and Environmental Protection, Canton Grisons (from January 1, 2027)
Barbara Haller Rupf	Director Academia Raetica

Aspen A

09:30-10:45 Session 1: Medicine and immunology

Scan to read abstracts

Chairs: Pierre-Yves Mantel, Christine Kühne – Center for Allergy Research and Education (CK-CARE) & Milena Sokolowska, Swiss Institute of Allergy and Asthma Research (SIAF)

Understanding the impact of opposing signals on human neutrophils in Atopic Dermatitis
Mel Diedro — Christine Kühne – Center for Allergy Research and Education (CK-CARE)

B cell responses to alarmins in type 2 inflammation
Hang Du — Swiss Institute of Allergy and Asthma Research (SIAF)

An activating myeloid receptor amplifies cutaneous inflammation in atopic dermatitis
Erik Kupschke — Christine Kühne – Center for Allergy Research and Education (CK-CARE)

Metabolic reprogramming in the lower airway epithelium of patients with asthma
Inés Jardón Parages — Swiss Institute of Allergy and Asthma Research (SIAF)

The effect of Triamcinolone Acetonide on chondrocytes in an in vitro model of osteoarthritis
Charlotta Kulik — AO Research Institute Davos

Aspen B

09:30-10:45 Session 2: Snow, atmosphere and climate

Scan to read abstracts

Chairs: Pascal Haegeli, WSL Institute for Snow and Avalanche Research SLF & Jürg Schweizer, WSL Institute for Snow and Avalanche Research SLF

A cold ring wind tunnel facility to study airborne snow metamorphism
Valentin Philippe — WSL Institute for Snow and Avalanche Research SLF

Sensitivity of Antarctic snow/ice properties to atmospheric influences under low sea ice conditions
Loana Grom — WSL Institute for Snow and Avalanche Research SLF

Side effects of artificially cooling the planet: ozone in a stratospheric aerosol injection scenario
Andrin Jörimann — Physikalisch-Meteorologisches Observatorium Davos and World Radiation Center (PMOD/WRC)

Long-term variations of the effect of different aerosol sources to solar radiation extinction
Angelos Karanikolas — Physikalisch-Meteorologisches Observatorium Davos and World Radiation Center (PMOD/WRC)

Exploring snow formation and redistribution processes through modelling and experimental measurements
Jacquemine Delfieu & Jonathan Heng — WSL Institute for Snow and Avalanche Research SLF

10:45-11:00 Break

Aspen A

11:00-11:45 Session 3: Allergy, biomarkers and rehabilitation

Chairs: Christoph Messner, Precision Proteomics Center, Swiss Institute of Allergy and Asthma Research (SIAF) & Esther Wehrle, AO Research Institute Davos

Single tape-strip proteomics enables functional readouts of skin health
Philipp Gessner — Swiss Institute of Allergy and Asthma Research (SIAF)

Dynamic remodeling of the plasma proteome during cashew oral immunotherapy
Huseyn Babayev — Swiss Institute of Allergy and Asthma Research (SIAF)

Blood-based extracellular vesicles as non-invasive biomarkers for eosinophilic esophagitis
Nicolò Marchi — Christine Kühne – Center for Allergy Research and Education (CK-CARE)

Scan to read abstracts

Aspen B

11:00-12:00 Session 4: Technology, language, education and culture

Chairs: Barbara Haller Rupf, Academia Raetica & Daniel Zünd, University of Applied Sciences of the Grisons

Vibration detection via changes in laser speckles: A CMOS and event-based camera comparison
Sascha Zumstein — University of Applied Sciences of the Grisons

Building a multilingual dataset for Romansh and Ladin Large Language Models
Angela Heldstab — University of Zurich

Assessing the effectiveness of an enrichment program on computational thinking
Parvaneh Babari — Pädagogische Hochschule Graubünden

A history of alpine archaeology in Graubünden: technology, practice and the making of knowledge
Mirjam Mayer — Institut für Kulturforschung Graubünden

Scan to read abstracts

12:00-13:15 Lunch

Aspen A

13:15-14:00 Session 5: Medicine and regeneration

Chairs: Sibylle Grad, AO Research Institute Davos & Claudio Rhyner, Christine Kühne – Center for Allergy Research and Education (CK-CARE)

Engineering biomaterials to guide bone regeneration through controlled growth factor interactions
Michaela Fischer — AO Research Institute Davos

What a pain – understanding different types of pain with the PD-PCS
Jonathan Hunger — Kantonspital Baden, Kliniken Valens

Early mechanobiological responses of bovine intervertebral disc to axial rotation
Marta Santolini — AO Research Institute Davos

Scan to read abstracts

14:00-14:15 Break

Aspen A

14:15-15:00 Session 5 (continued): Medicine and regeneration

Blunt head injury as a potential trigger for Ménière's disease
Lara Fiona Schoeb — Interstaatliche Maturitätsschule Sargans

Recreating atopic dermatitis in excised healthy human skin
Colin Waichler — Swiss Institute of Allergy and Asthma Research (SIAF)

Does timing matter? How "when you move" could improve joint repair
Katrin Sophie Wendrich — AO Research Institute Davos

Aspen B

13:15-14:00 Session 6: Alpine environments: Monitoring, modelling and ecology

Chairs: Nadine Salzmann, WSL Institute for Snow and Avalanche Research SLF & Daniel Zünd, University of Applied Sciences of the Grisons

A wildfire simulation model for Switzerland
Martina Cavegn — University of Applied Sciences of the Grisons
& Luisa Plasczymonka — University of Applied Sciences of the Grisons

Evaluating the SnowScope: a lightweight penetrometer for snowpack characterization
Lydia Knappe — WSL Institute for Snow and Avalanche Research SLF

Uncrewed surface vehicle for underwater monitoring of Isoëtes lacustris in alpine lakes
Simon Müller — University of Applied Sciences of the Grisons

Scan to read abstracts

14:00-14:15 Break

Aspen B

14:15-15:00 Session 6 (continued): Alpine environments: Monitoring, modelling and ecology

Disentangling direct and indirect effects of elevation on plant-consumer interactions
Carla Behringer — WSL Institute for Snow and Avalanche Research SLF

Seeking cool and shelter: how Alpine ibex respond to severe summer weather
Adeline Bonaglia — Swiss National Park

Remote detection and measurement of debris flow
Yves Diggelmann — University of Applied Sciences of the Grisons

15:00-15:15 Break

CK-CARE DAVOS

The Christine Kühne – Center for Allergy Research and Education (CK-CARE) advances precision immunology at the **Medicine Campus Davos.** Bridging basic immunological discovery, clinical research and digital innovation, CK-CARE provides a comprehensive translational platform for atopic dermatitis and allergies.

Powered by the large ProRaD and CARE patient cohorts, certified biobanks and longitudinal biological sampling, CK-CARE turns high-dimensional human data into targeted diagnostic, therapeutic, and preventive solutions. Through its partner Davos BioSciences AG, scientific findings are systematically validated for clinical and industrial applications.

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Aspen A

15:15-15:45 Session 7: Transdisciplinary project

Chair: Barbara Haller Rupf, Academia Raetica

Crumbling Bündnerschiefer: Sediment erosion hotspots reshape the landscape in the Alpine Rhine basin
Sophia Demmel & Sofia Garipova — ETH Zürich, University of Bern

Scan to read abstracts

Aspen A

15:45-16:15 Session 8: ETH Studio Davos

Chair: Katja Bärenfaller, Swiss Institute of Allergy and Asthma Research (SIAF), University of Zurich

Unlocking hidden protein variants: A custom database for isoform discovery
Laura Nieba — ETH Zürich

Residue-level attributions in protein language models do not recover allergen epitopes
Jianzhou Yao — ETH Zürich

Combining satellite observations and reanalysis data to predict Earth's outgoing longwave radiation
Camilla Andreozzi — ETH Zürich

Scan to read abstracts

16:15-16:30 Break

Aspen A

16:30-17:15 Session 9: Metabolism, microbiome, infection and inflammation

Chairs: Walter Kistler, Spital Davos, SRISM
& Willem van de Veen, Swiss Institute of Allergy and Asthma Research (SIAF)

Improper L-phenylalanine metabolism can contribute to severe allergic inflammation
Abhijeet Kulkarni — Swiss Institute of Allergy and Asthma Research (SIAF)

Airway cell energy and inflammation in viral infection
Urszula Radzikowska — Swiss Institute of Allergy and Asthma Research (SIAF)

Mechanisms of flavor enhancer-induced gut microbiome alterations
Bingjie Zhao — Swiss Institute of Allergy and Asthma Research (SIAF)

Scan to read abstracts

Aspen B

16:30-17:30 Session 10: Exercise, health and rehabilitation

Chairs: Ron Clijsen, SUPSI, THIM Landquart & Thim Van der Laan, SUPSI, THIM Landquart

Towards saliva-based exercise testing using saliva-based lactate threshold
Eva Jäger — Spital Davos, SRISM

Residential Urbanisation degree, mental health and physical fitness in cardiovascular disease patients
Hadassa Brito da Silva — Hochgebirgsklinik Davos

Cognitive function and depressive symptoms in inpatients with stress-related disorders
Wiebke Turner — Clinica Holistica Engiadina

Exercise oxygen uptake and recovery kinetics in older female cardiac rehabilitation patients
Gloria Petrasch — Hochgebirgsklinik Davos

Scan to read abstracts

18:30 Aperitif at Restaurant Extrablatt*

19:00 Conference dinner at Restaurant Extrablatt*

* not public

SCAN TO WIN

! QUIZ ?

Wissenschaftsquiz am Samstag, 7. November

Zur Teilnahme scanne bitte den QR-Code oder besuche diesen Link: https://app.sli.do/event/q89tQzHP2Z3EqD7QCUPTC5.
Um die Fragen zu beantworten, wähle die entsprechende Session (11 bis 18) aus.
Das Onlinequiz ist nur während der Sessions geöffnet. Eine Vorschau auf die Fragen findest du unter dem jeweiligen Abstract: https://gr-forscht.ch/programm/abstracts.
Die Gewinnerinnen und Gewinner werden bis zum 25. November per E-Mail benachrichtigt.

Science Quiz on Saturday, November 7

Take the opportunity to test your knowledge! The participants who answer the most questions correctly about the talks in Sessions 9 to 18 can win attractive prizes. Simply choose the correct answer from the three options provided.
To participate, scan the QR code or visit this link: https://app.sli.do/event/q89tQzHP2Z3EqD7QCUPTC5. To answer the questions, select the relevant session (11 to 18). The online quiz will only be open during each session. You can preview the questions under the corresponding abstracts here: https://gr-forscht.ch/en/program/abstracts.
Winners will be notified by email by November 25.

Wir danken den Sponsoren des Science Quiz / We thank the sponsors of the Science Quiz:
Casty Wohnen AG, Filios Weine Davos, Hockey Club Davos AG, Kirchner Museum Davos, Kulturplatz Davos & Schuler Bücher Davos.

Saturday, November 7, 2026

Die Sessions in blauer Schrift finden auf Deutsch statt.

08:30-09:30 Registration & “Znüni”

Aspen A

09:30-10:45 Session 11: Sprache, Schnee, Bewegung und Gesundheit

Scan to read abstracts

Chairs: Oscar Eckhardt, Academia Raetica & David Niederseer, Hochgebirgsklinik Davos

Die Schweizerdeutschen Dialekte in Heinzenberg, Domleschg, Imboden und Surselva: Was macht sie besonders?
Rahel Frefel — University of Zurich
& Annemarie Hartman — University of Zurich

Wie hochaufgelöste Schneedeckensimulationen die Lawinenwarnung verbessern können
Anton Widulla — WSL Institute for Snow and Avalanche Research SLF

Was der Fettstoffwechsel mit Asthma in den Atemwegen zu tun hat
Michelle Mennel — Swiss Institute of Allergy and Asthma Research (SIAF)

Klassifikation von Langlauf-Subtechniken mit einem einzelnen IMU-Sensor und Machine Learning
Joel Barandun — University of Applied Sciences of the Grisons

Körper, Kopf, Courage – Therapeutisches Klettern nach einem Schlaganfall
Franziska Riegel — Klinikgruppe Valens, Private Universität im Fürstentum Liechtenstein (UFL)

Aspen B

09:30-10:45 Session 12: Health, environment and language

Scan to read abstracts

Chairs: Britta Allgöwer, Academia Raetica
& Katja Bärenfaller, Swiss Institute of Allergy and Asthma Research (SIAF) / University of Zurich

Decoding life-long trajectories of disease activity in Atopic Dermatitis
Sarang Chafle — Christine Kühne – Center for Allergy Research and Education (CK-CARE)

Unlocking biodiversity potential: What can farmers achieve when working together in a landscape?
Viviane Fahrni — ETH Zürich

Influence of cell culture media conditions in in vitro bone formation
Jorge Úbeda Garrido — AO Research Institute Davos

Language attitudes in focus: new data on L2 Italian in the canton of Grisons
Serena Duranti — Pädagogische Hochschule Graubünden, Universität Bern
& Giulia Soldati — Pädagogische Hochschule Graubünden, Université de Fribourg

Mapping the invisible: drone-based early detection of bark beetle infestations in alpine forests
Tomoki Loeillot — WSL Institute for Snow and Avalanche Research SLF

10:45-11:00 Break

Aspen A

11:00-11:45 Session 13: Natur, Sprache und Gesundheit

Scan to read abstracts

Chairs: Martina Roesner, Theologische Hochschule Chur & David Schmid, CSEM

Rückenschmerzen behandeln mit körpereigenen Zellen
Marcia Mürner — AO Research Institute Davos

Fussball als Medium der Minderheitenpolitik: Intentionen, Bedeutungen und Folgen
Giuanna Emilia Caviezel — University of Zurich

Mehr als 100 Jahre Wildnis im Schweizerischen Nationalpark
Raphael von Büren — Swiss National Park, University of Basel

Aspen B

11:00-11:45 Session 14: Allergy, bone healing and investment decisions

Chairs: Sibylle Grad, AO Research Institute Davos
& Matthias Müller, Pädagogische Hochschule Graubünden

Mind the gap: Why some bone fractures never heal
Claire Chabot — AO Research Institute Davos

Bringing production home: Do investors actually care?
Selina Steiner — University of Applied Sciences of the Grisons

Reading the sugar code of allergy
Xindong Sun — Swiss Institute of Allergy and Asthma Research (SIAF)

Scan to read abstracts

Foyer C

11:45-14:00 Mittag der Forschung / Science Noon

Ausstellung der Forschungsinstitute, Hochschulen und Kliniken
Exhibition of research institutes, universities and clinics

Aussteller / Exhibitors: AO Research Institute Davos; Christine Kühne – Center for Allergy Research and Education (CK-CARE), Davos; CSEM, Landquart; Fachhochschule Graubünden, Chur; Institut für Kulturforschung Graubünden, Chur; Pädagogische Hochschule Graubünden, Chur; Physikalisch-Meteorologisches Observatorium Davos / Weltstrahlungszentrum; Psychiatrische Dienste Graubünden, Chur und weitere Orte / and various locations; Rehabilitation and Exercise Science Laboratory (RES Lab), SUPSI/THIM Landquart; Schweizerischer Nationalpark, Zernez; Schweizerisches Institut für Allergie- und Asthmaforschung SIAF, Davos; Spital Davos AG with Davos Sports & Health and SRISM; Verein Bündner Pärke; WSL-Institut für Schnee- und Lawinenforschung SLF, Davos

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Foyer C

12:00 Vernissage / Launch

Jubiläumspublikation «Forschen in Graubünden»
Anniversary publication “Research in Graubünden”

Aspen A

14:00-15:00 Session 15: Gesundheit, Gesellschaft und Umwelt

Chairs: Walter Kistler, Spital Davos / SRISM
& Lucas Lombriser, University of Applied Sciences of the Grisons / University of Geneva

Was macht ein Emulgator mit unserem Darm?
Can Zeyneloglu — Swiss Institute of Allergy and Asthma Research (SIAF)

Channel-Hopping in Graubünden: wie der abgeschattete Bergkanton an ein vielfältiges TV-Programm kam (Online-Vortrag)
Inez Barrer — ETH Zürich

Leistungsmessung im Trailrunning und Langlauf in der freien Natur
Alicia Feist — Davos Sports & Health, Department of Sports Medicine, Hospital Davos

Unsichtbares messen: Atmosphäre und Turbulenzen auf dem Silvrettagletscher
Patricia Asemann — WSL Institute for Snow and Avalanche Research SLF

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Aspen B

14:00-15:00 Session 16: Health, biomedicine and forest ecology

Chairs: Peter Bebi, WSL Institute for Snow and Avalanche Research SLF
& Paola Martinez Murillo, Christine Kühne – Center for Allergy Research and Education (CK-CARE)

Could IgD^{+} B Cells help build lasting immune tolerance? Lessons from beekeepers and tonsils
Juan Felipe Lopez Crespo — Swiss Institute of Allergy and Asthma Research (SIAF)

Phased biomechanical and microbiome care pathways in complex postpartum rehabilitation
Naïma Bouti — School of Health Sciences / ZHAW

A high-throughput proteomics platform for lymphoma research
Lopamudra Chatterjee — Precision Proteomics Center, Swiss Institute of Allergy and Asthma Research (SIAF)

How forests breathe – Highlights from 30 years of research in the Davos Seehornwald
Iris Feigenwinter — ETH Zürich

Scan to read abstracts

15:00-15:15 Break

Aspen A

15:15-16:00 Session 17: Alpine Umwelt, Biodiversität und materielle Werte im digitalen Zeitalter

Scan to read abstracts

Chairs: Anne Kempel, WSL Institute for Snow and Avalanche Research SLF & Jürg Kessler, Academia Raetica

Eagleshot: Eine offene Sensorplattform zur Überwachung von Gletschern und alpinen Naturgefahren
Noel Frey — University of Applied Sciences of the Grisons

Vom Code zum Handwerk: Physische Non-Fungible Tokens und die Wiederkehr materiellen Werts
Onna Rageth — York St. John University, UK

Wie Erwärmung und Biodiversitätsverlust das Leben im Boden verändern
Carole Schöpfer — WSL Institute for Snow and Avalanche Research SLF

Aspen B

15:15-16:00 Session 18: Microbiome, immunometabolism and solar radiation

Scan to read abstracts

Chairs: Jürg Schweizer, WSL Institute for Snow and Avalanche Research SLF & Willem van de Veen, Swiss Institute of Allergy and Asthma Research (SIAF)

From food to function: A metaproteomics investigation of the gut microbiome
Anna-Sophia Egger-Hörschinger — Precision Proteomics Center, Swiss Institute of Allergy and Asthma Research (SIAF)

Chasing phenylalanine: where does it go in T cells?
Maria Isabel Delgado Dolset — Swiss Institute of Allergy and Asthma Research (SIAF)

Effect of stratospheric aerosol injection scenarios on surface irradiation and solar energy production
Kevin Kilchhofer — Physikalisch-Meteorologisches Observatorium Davos and World Radiation Center (PMOD/WRC)

16:00-16:30 Break

Aspen A & B

16:30-16:45 Keynotes

From Porta Alpina to cosmic portal: A Gotthard quantum sensor for gravitational waves and dark matter
Lombriser, Lucas — University of Applied Sciences of the Grisons / University of Geneva

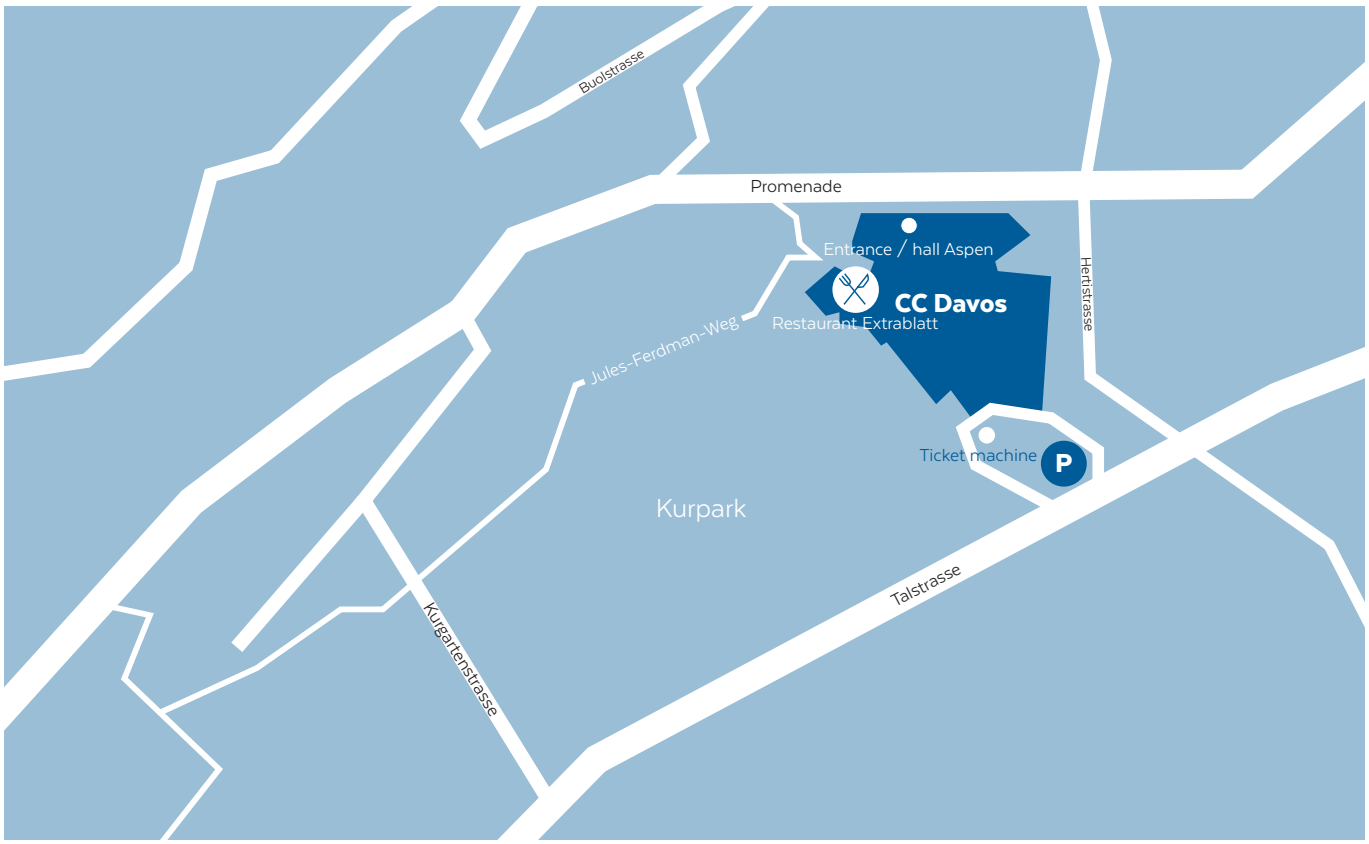
Aspen A & B

16:45-17:15 Recognition of recent PhD graduates and conference awards for the best scientific presentations

17:15 Aperitif

Useful information

“Graubünden forscht” takes place at the Congress Centre Davos, hall Aspen, Promenade 90, Davos Platz. Use the main entrance at Promenade. Public parking is accessed from Talstrasse. Buy discounted parking tickets (1 day: CHF 8.00, 2-3 days: CHF 10.00) by using the ParkingPay App. Select “Davos Platz”, zone “13 Kongress”, and “Bewilligung”.



Visitor registration
www.gr-forscht.ch/anmeldung-besucher

Welcome Desk
Friday, November 6, 2026, 08:00–17:30
Saturday, November 7, 2026, 08:30-16:30

Aperitif, Friday, November 6, 2026, 18:30
(not public) at Restaurant Extrablatt
Promenade 90, 7270 Davos Platz

Conference Dinner, Friday, November 6, 2026, 19:00
(not public) at Restaurant Extrablatt
Promenade 90, 7270 Davos Platz.

Conference Coordinator
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Conference Website
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(Saturday 08:00-17:00)

Public Transport
Busses 301, 303, and 304 stop at “Kongresszentrum Davos”.
For timetables, see www.sbb.ch.
OnDemand Angebot - invia PickMeUp, see
https://invia.ch/DE/pickmeup.html

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