

















### **Mission Statement**

The Virtual Alpine Observatories (VAO) is a network of 12 European Alpine Observatories, including high alpine research facilities. The network aims to advance interdisciplinary collaboration embracing Atmosphere, Cryosphere, Hydrosphere, Biosphere, Earth Surface, Lithosphere and Human-Environment interaction. This collaboration is the key to a holistic understanding of the Alps and high mountains in a changing climate and environment and features cross-border coordinated research. The Alps are a time machine for climate change because they are warming twice as fast as European lowlands. Our combined research serves to develop models and predictions that help to understand the Future Alpine Environment. Our combined action provides the base for knowledge-based decisions for communal, national and international policy makers. The vertical integration of all Alpine spheres is central to this endeavor, offering a unique approach to make use of our combined transdisciplinary knowledge.

## **VAO Symposium**

Every two years, the VAO Symposium facilitates the exchange of the latest research findings and future collaborative research pursuits among members and interested individuals. The symposium emphasizes productive interdisciplinary collaboration among those working in the Atmosphere, Cryosphere, Hydrosphere, Biosphere, Relief, and Lithosphere fields. For this we focus more on transdisciplinary workshops than on individual talks and aim to develop future research ideas and projects over two days. The outcomes of the symposium will guide the network's direction and impact in the coming years.

The VAO Symposium is planned as a 48-hour event in the beautiful setting of the castle in Kaprun. The conference starts and ends at midday to allow participants to travel on the same day.











Zell am See-Kaprun in Winter © Zell am See-Kaprun Tourismus



Castle Kaprun in Winter © Zell am See-Kaprun Tourismus



Kaprun and the Kitzsteinhorn in Winter © EXPA FEI



Castle Kaprun in Winter © Zell am See-Kaprun Tourismus/Mairitsch



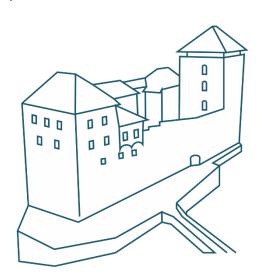






## Programme overview

| April 2nd, 2025 (Wednesday) |              |   |  |
|-----------------------------|--------------|---|--|
| 13:00 – 14:00               | Knight Hall  | Opening Ceremony  |  |
| 14:00 – 15:00               | Knight Hall  | Podiumsdiskussion Klimawandel & Naturgefahren im Alpenraum (German) |  |
| 15:00 – 16:00               | Knight Hall  | Challenges of VAO Mountain Research in a changing climate           |  |
| 16:00 – 16:30               | Foyer        | Coffee Break  |  |
| 16:30 – 17:30               | Knight Hall  | Challenges of VAO Mountain Research in a changing climate           |  |
| 17:30 – 19:00               | Gallery Hall | Poster Sessions   |  |
| 19:00 – 21:00               | Foyer        | Icebreaker  |  |



#### April 3rd, 2025 (Thursday) Knight Hall 9:00 - 10:15 Introduction of the VAO Observatories and Stations 10:15 - 11:30 Diciplinary Workshops (parallel, see p. 7) tba 11:30 - 11:50 Foyer Coffee Break 11:50 - 12:30 Knight Hall Reports from disciplinary workshops 12:30 - 14:00 Lunch Break Interdiciplinary Workshops (parallel, see p. 8) 14:00 - 15:30 tba Coffee Break 15:30 - 16:00 Foyer 16:00 - 16:30 Knight Hall Reports from disciplinary workshops 17:00 - 18:00 Knight Hall Podium discussion 19:30 - 22:00 Auhof Conference Dinner

| April 4th, 2025 (Friday) |             |                                   |  |
|--------------------------|-------------|-----------------------------------|--|
| 9:00 – 10:00             | Knight Hall | Introduction of the VAO Network   |  |
| 10:00 – 11:30            | Knight Hall | Future projects and project ideas |  |
| 11:30 – 12:00            | Knight Hall | Closing Ceremony                  |  |
|                          |             |                                   |  |









## April 2nd, 2025 (Wednesday)

## **Opening Ceremony 13:00 – 14:00**

| 13:00 – 13:15 | Knight Hall | Prof. Dr. Michael Krautblatter | New strategies of the Virtual Alpine Observatory                        |
|---------------|-------------|--------------------------------|---|
| 13:15 – 13:30 | Knight Hall | tba                            | Welcome from the German Ministry of Environment and Consumer Protection |
| 13.30 – 13.45 | Knight Hall | tba                            | Welcome from Austria  |

## Podiumsdiskussion (in german language) 14:00 – 15:00

14:00 – 15:00 Knight Hall tba Podiumsdiskussion: Klimawandel & Naturgefahren im Alpenraum – Handlungsbedarf und Strategien

# Challenges of VAO Mountain Research in a changing climate 15:00 – 17:30

| 15:00 – 15:20 | Knight Hall | Speaker 1 – tba | Atmospheric challenges of VAO Mountain Research in a changing climate                    |
|---------------|-------------|-----------------|--|
| 15:20 – 15:40 | Knight Hall | Speaker 2 – tba | Biospheric response challenges of VAO Mountain Research in a changing climate            |
| 15:40 – 16:00 | Knight Hall | Speaker 3 – tba | Cryospheric response challenges of VAO Mountain Research in a changing climate           |
| 16:00 – 16:30 | Foyer       | Coffee Break    |  |
| 16:30 – 16:50 | Knight Hall | Speaker 4 – tba | Geo- and hydrological risk as a challenge of VAO Mountain Research in a changing climate |
| 16:50 – 17:10 | Knight Hall | Speaker 5 – tba | Hydrological response challenges of VAO Mountain Research in a changing climate          |
| 17:10 – 17:30 | Knight Hall | Speaker 6 – tba | Biomedical and human challenges of VAO Mountain Research in a changing climate           |

April 2nd, 2025









## **Poster Sessions 17:30 – 19:00**

| Session 1  | Gallery Hall Po | oster Nr. 1.1 – 1.X   | Atmospheric response in a changing climate                         |
|------------|-----------------|-----------------------|--|
| Session 2  | Gallery Hall Po | oster Nr. 2.1 – 2.X   | Biospheric response in a changing climate                          |
| Session 3  | Gallery Hall Po | oster Nr. 3.1 – 3.X   | Cryospheric response in a changing climate                         |
| Session 4  | Gallery Hall Po | oster Nr. 4.1 – 4.X   | Geo- and hydrological risks in a changing climate                  |
| Session 5  | Gallery Hall Po | oster Nr. 5.1 – 5.X   | Hydrological response in a changing climate                        |
| Session 6  | Gallery Hall Po | oster Nr. 6.1 – 6.X   | Biomedical and human challenges in a changing climate              |
| Session 7  | Gallery Hall Po | oster Nr. 7.1 – 7.X   | Atmosphere – surface coupling in a changing climate                |
| Session 8  | Gallery Hall Po | oster Nr. 8.1 – 8.X   | Atmosphere – Cryoshpere- Hyrosphere coupling in a changing climate |
| Session 9  | Gallery Hall Po | oster Nr. 9.1 – 9.X   | Geosphere- Bioshpere coupling and Hazards in a changing climate    |
| Session 10 | Gallery Hall Po | oster Nr. 10.1 – 10.X | Biomedical – Human interaction in a changing climate               |

# Icebreaker 19:00 – 21:00

19:00 – 21:00 Foyer Icebreaker with cold drinks

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# April 3rd, 2025 (Thursday)

## Introduction of the VAO Observatories and Stations 9:00 – 10:15

| 9:00 – 9:05   | Knight Hall | Michael Krautblatter | Introduction of the VAO Observatories & Overview of Observatories and available Data                     |  |
|---------------|-------------|----------------------|--|--|
| 09:05 - 09:10 |             | tba                  | Germany: Umweltforschungsstation Schneefernerhaus (UFS) (inquired)                                       |  |
| 09:10 - 09:15 |             |                      | Germany: Observatorium Schauinsland (inquired) / Observatorium Hohenpeißenberg (inquired)                |  |
| 09:15 - 09:20 |             |                      | Austria: Glacier Observatory Vernagtferner (inquired)  |  |
| Etc.          |             |                      | Austria: Open-Air-Lab Kitzsteinhorn (inquired) / Observatorium Sonnblick (inquired)                      |  |
|               |             |                      | France: Observatoire de Haute-Provence (inquired)  |  |
|               |             |                      | France: Station Alpine Joseph Fourier, Lautaret-Pass (inquired)  |  |
|               |             |                      | France: Vallot observatory, Mont Blanc (inquired)  |  |
|               |             |                      | Italy: Sentinel Alpine Observatory, Rittner Horn (inquired) / Eurac-LT(S)ER site Macia/Matsch (inquired) |  |
|               |             |                      | Switzerland: Hochalpine Forschungsstationen Jungfraujoch (HFSJG) (inquired) / Gornergrat (HFSJG)         |  |
|               |             |                      | Slovenia: Otlica Observatory (inquired)  |  |
|               |             |                      | Armenia: Aragats (inquired)  |  |
|               |             |                      | Norway: Antoya Observatory (inquired)  |  |
|               |             |                      | Slovakia: Observatory Lomnický štít (inquired)   |  |
|               |             |                      | Other countries (please contact us if you want to report)  |  |

# Diciplinary Workshops (parallel sessions) 10:15 – 11:30

| 10:15 – 11:30 | tba | Moderator 1 – tba | Atmospheric challenges of VAO Mountain Research in a changing climate                    |
|---------------|-----|-------------------|--|
| 10:15 – 11:30 | tba | Moderator 2 – tba | Biospheric response challenges of VAO Mountain Research in a changing climate            |
| 10:15 – 11:30 | tba | Moderator 3 – tba | Cryospheric response challenges of VAO Mountain Research in a changing climate           |
| 10:15 – 11:30 | tba | Moderator 4 – tba | Geo- and hydrological risk as a challenge of VAO Mountain Research in a changing climate |
| 10:15 – 11:30 | tba | Moderator 5 – tba | Hydrological response challenges of VAO Mountain Research in a changing climate          |
| 10:15 – 11:30 | tba | Moderator 6 – tba | Biomedical and human challenges of VAO Mountain Research in a changing climate           |

April 3rd, 2025









11:30 – 11:50 Foyer Coffee Break

# Reports from disciplinary workshops 11:50 – 12:30

| 11:50 – 11:55 | Knight Hall | tba         | Atmospheric challenges of VAO Mountain Research in a changing climate                    |
|---------------|-------------|-------------|--|
| 11:55 – 12:00 | Knight Hall | tba         | Biospheric response challenges of VAO Mountain Research in a changing climate            |
| 12:00 – 12:05 | Knight Hall | tba         | Cryospheric response challenges of VAO Mountain Research in a changing climate           |
| 12:05 – 12:10 | Knight Hall | tba         | Geo- and hydrological risk as a challenge of VAO Mountain Research in a changing climate |
| 12:10 – 12:15 | Knight Hall | tba         | Hydrological response challenges of VAO Mountain Research in a changing climate          |
| 12:15 – 12:20 | Knight Hall | tba         | Biomedical and human challenges of VAO Mountain Research in a changing climate           |
| 12:20 – 12:30 | Knight Hall | tba         | Discussion   |
| 12:30 – 14:00 |             | Lunch Break |  |

# Interdiciplinary Workshops (parallel sessions) 14:00 – 15:30

| 14:00 – 15:30 | tba   | Moderator 1 – tba | Atmosphere - Geosphere - Cryosphere - Hyrosphere coupling in a changing climate |
|---------------|-------|-------------------|---|
| 14:00 – 15:30 | tba   | Moderator 3 – tba | Geosphere – Bioshpere – Human coupling and Hazards in a changing climate        |
| 15:30 – 16:00 | Foyer | Coffee Break      |   |

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# Reports from disciplinary workshops 16:00 - 16:45

| 16:00 – 16:15 | Knight Hall | tba             | Atmosphere - Geosphere - Cryosphere - Hyrosphere coupling in a changing climate |
|---------------|-------------|-----------------|---|
| 16:15 – 16:30 | Knight Hall | tba             | Geosphere – Bioshpere – Human coupling and Hazards in a changing climate        |
| 15 min        |             | Technical break |   |

## Podium discussion 17:00 – 18:00

| 17:00 – 18:00 | Knight Hall | tba               | Podium Discussion: The VAO as an integrative international research collaboration on Alpine climate change |
|---------------|-------------|-------------------|--|
| 19:30 – 22:00 | Auhof       | Conference Dinner | (Registration necessary prior to the symposium)  |

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# April 4th, 2025 (Friday)

## Introduction of the VAO Network 9:00 – 10:00

9:00 – 10:00 Knight Hall tha Alpine Convention (inquired)

ESA (inquired) ISSI (inquired) MRI (inquired)

tba

## Future projects and project ideas 10:00 – 11:30

| 10:00 – 10:30 | tba | tba | Benchmark projects in the Alpine Space                     |
|---------------|-----|-----|--|
| 10:30 – 11:30 | tba | tba | Project ideas and stakeholders needs in a changing climate |

## **Closing Ceremony 11:30 – 12:00**

| 11:30 - 12:00 | tba | tba | Closing ceremony |
|---------------|-----|-----|------------------|
|               |     |     |                  |

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# **Poster Programme (Gallery Hall)**

| S  | ession | ID  | Poster Titel | Authors |
|----|--------|-----|--------------|---------|
| tk | ba     | tba |              |         |
|    |        |     |              |         |

#### Poster boards

Poster boards are in portrait format. Authors can make use of the full dimensions of DIN A0 (841 x 1189 mm). Poster board number correspond to the poster number in the programme.

Poster Programme 11









## VAO Symposium 2025, Kaprun/ Salzburg in short

#### Aim:

Transdisciplinary exchange, develop future research ideas and projects, outcome will guide the network's direction and impact in the coming years.

#### Date:

02.-04. April 2025

#### Venue:

Burg Kaprun, Schloßstraße 55, 5710 Kaprun, Austria (https://www.burg-kaprun.at/)

#### **Organizing Committee:**

Prof. Michael Krautblatter (TUM) Dr. Markus Keuschnig (GEORESEARCH) Verena Stammberger (TUM) Birgit Einhellinger (STMUV) Dr. Sabine Kraushaar (TUM)

#### **Deadline Registration:**

15. February 2022

#### Contact:

In case of any questions after reading through the information please contact info@vao.bayern.de

#### Information

### **Public transport to Kaprun**

Train connections from Munich to Zell am See are given below. The public bus from Zell am See runs every 10 to 20 minutes depending on the time to the conference venue in Kaprun (Kaprun Maiskogelbahn or Kaprun Ortsmitte; 15 minute ride). From the bus station it is a 15 min walk to the Venue of the Symposium.

## Arrival 2nd April 2025 for Symposium Start at 1PM

Train: Munich Hbf – Wörgl – Zell am See 09:34-12:14

Bus 660: Zell am See – Kaprun Maiskogelbahn 12:23-12:41

#### Return 4th April 2025 after Symposium End at 1 PM

Bus 660: Kaprun Maiskogelbahn – Zell am See 12:52 – 13:09, 13:22 – 13:39, 13:52 – 14:09, etc.

**Train:** Zell am See – Wörgl – Munich Hbf 13:44-16:27, 15:45-18:28, 17:44-20:26, 18:46 – 22:13, 19:46-22:36

**General Information** 









## Accommodation (not included in conference fee)

Numerous accommodations (hotels, bed & breakfasts etc.) are available in Kaprun. We recommend you to check online booking platforms to find accommodations according to your preferences.

Below you find some suggestions for accomodations:

- Familienhotel Antonius: www.hotel-antonius.at
- Hotel Sonnblick: www.hotel-sonnblick.at
- Hotel DAS Alpenhaus Kaprun: www.alpenhaus-kaprun.at
- Vötter's Hotel: www.sport-kristall.at
- Gästehaus Steger: Pension Gästehaus Steger in Zell am See –
  Kaprun: urlaub-kaprun.com
- Pension Austria: www.pension-austria.at
- JUFA Hotel Kaprun: zellamsee-kaprun.com
- Hotel Tauern SPA Zell am See-Kaprun: www.tauernspakaprun.com

Early April is still ski season, we therefore **recommend to book as early** as **possible.** 

Many further hotels are available in Kaprun. Please refer to the tourism association Kaprun (welcome@zellamsee-kaprun.com or +43 6547 8080) or visit an online booking platform to book a hotel according to your preference.

**General Information** 









## Map of Kaprun

