

EUROTECH SUMMER SCHOOL · 2026

Energy Storage & Demand

A one-week intensive school on the full spectrum of energy storage, hosted by the GEM Lab at EPFL Valais, Sion.

31 Aug – 4 Sep 2026

EPFL Valais · Sion & EPFL Lausanne

EUROTECH UNIVERSITIES ALLIANCE

OPENING STATEMENT

Storage is the hinge of the energy transition.

Dear Participants,

It is my pleasure to welcome you to the EuroTech Energy Storage & Demand Summer School 2026 at EPFL. This week brings together students, researchers, and experts from across the EuroTech Universities Alliance to exchange ideas, learn from one another, and build new collaborations. Through lectures delivered by leading academics and industry experts, laboratory visits, and scientific discussions, participants will have the opportunity to explore current developments and emerging challenges in energy storage and demand management. The Summer School provides a stimulating environment in which knowledge, perspectives, and experiences can be shared across disciplines, fostering meaningful exchanges and strengthening connections within the broader energy research and innovation community.

Beyond the academic program, this week is also an opportunity to engage with peers from different backgrounds, discover new approaches and ideas, and develop relationships that may lead to future collaborations. I encourage you to make the most of these interactions and to contribute actively to the discussions throughout the week.

I would like to thank all speakers, contributors, and organizers for making this event possible, and all participants for their engagement and enthusiasm.

I hope you find this week inspiring, enjoyable, and rewarding, and that the knowledge gained and connections established here will continue to benefit you long after the Summer School has concluded.

On behalf of the entire organizing team,

I warmly welcome you to the EuroTech Energy Storage & Demand Summer School 2026



Dr. Jan Van Herle
Director · GEM Lab, EPFL

Dr. Jan Van Herle

Director, Group of Energy Materials (GEM) — EPFL Valais · Wallis, Sion

ABOUT

The EuroTech Universities Alliance

The EuroTech Universities Alliance is a strategic partnership of leading European universities of science and technology joining forces to build a strong, sustainable, sovereign, and resilient Europe. The partners bring their excellence in research and education, active engagement in vibrant eco-systems, and service to society. Together, they join forces to accelerate their research in high-tech focus areas and advocate for change through dedicated partners and a strong presence in Brussels.

Based on the EuroTech values, the partners aspire to a new level of cooperation by bringing together their inclusive, diverse, and sustainable campuses. The EuroTech Universities create a unique environment for international talents to lead a new generation of change agents in research, entrepreneurship, industry, and society.

EPFL & the GEM Lab

École Polytechnique Fédérale de Lausanne (EPFL), founded in 1969 in Lausanne, Switzerland, is one of Europe's leading universities, recognized for its excellence in research, education, and innovation. It offers programs in engineering, computer science, natural sciences, architecture, and life sciences, with students, researchers, and faculty from more than 120 countries.

Known for its cutting-edge research, entrepreneurial culture, and strong industry ties, EPFL hosts the Group of Energy Materials (GEM), which specializes in fuel cells and electrolyzers. GEM conducts interdisciplinary research across the modeling, design, experimental validation, and characterization of energy systems at the component, cell, stack, and system levels. Drawing on advanced laboratory facilities and close collaboration with experts in mechanical engineering, materials science, chemistry, and electron microscopy, alongside industrial and European research partners, GEM helps EPFL drive innovation in sustainable energy technologies.

The 2026 Summer School

The Summer School runs over one intensive week, from 31 August (starting 15:30) to 4 September 2026 (ending 13:30), across EPFL's campuses in Sion and Lausanne. The program pairs lectures by leading international academics and industry experts with hands-on laboratory visits, giving participants direct exposure to cutting-edge energy storage research. Attendees will also join an excursion highlighting the links between energy systems, natural resources, and sustainability, and a poster session offering the chance to present research, exchange ideas, and build collaboration across students, researchers, and professionals from diverse backgrounds. Updated information is available at <https://eurotechsummerschool2026.epfl.ch/>.

5

DAYS

10

LECTURES

4

LAB VISITS

1

EXCURSION

ORGANIZING TEAM

**GEM Lab — EPFL**



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PROGRAM

Week at a glance

MON 31 Aug SION	TUE 01 Sep SION	WED 02 Sep GRANDE DIXENCE/SION	THU 03 Sep LAUSANNE	FRI 04 Sep SION
Arrival Lecture 1 Sion Tour Welcome dinner	Lecture 2 Lecture 3 Lecture 4 Lunch Joint discussion Lecture 5 Lab visit 1 Free evening	Grande Dixence Visit (Lunch included) Poster session with aperitif Free evening	Travel Lecture 6 Lecture 7 Lunch Lecture 8 Lab visit 2 Lecture 9 Lab visit 3 Boat trip Dinner by the lake	Lab visit 4 Lecture 10 Conclusion Lunch

■ Lecture
 ■ Discussion
 ■ Lab / travel
 ■ Excursion
 ■ Social
 ■ Poster

Detailed schedule on the following pages →

MONDAY**31 AUGUST****Introduction**

EPFL Valais · Wallis, Sion

15:30

16:30

LECTURE 1**Energy on Demand: Why Storage Is Central to Future Energy Systems**

Prof. Emeritus Alfred Rufer — EPFL

16:45

18:30

ICEBREAKER**Sion City Welcome Tour***A tour through the old town of Sion to get to know the group.***19:00**

22:00

DINNER**Welcome Dinner: Cheese Fondue***A Valais classic to open the week.*

TUESDAY**01 SEPTEMBER****Electrochemical Storage**

EPFL Valais · Wallis, Sion

08:30

09:30

LECTURE 2**Large-Scale Storage with Redox Flow Batteries**

Prof. Antoni Forner Cuenca — TU/e

09:45

10:45

LECTURE 3**Batteries Fundamentals, Research & E-Mobility**

Prof. Priscilla Caliendo — BFH

11:00

12:00

LECTURE 4**Supercapacitors Challenge Batteries**

Dr. Roland Gallay — Garmanage

*12:00 – 13:30 · Lunch break***13:30**

14:30

DISCUSSION**Joint discussion between morning speakers**

Q&A session with all lecturers of the morning.

14:45

15:45

LECTURE 5**Grid-Connected Energy Storage: Applications and strategies.**

Prof. Fabrizio Sossan — Gridlab at HES-SO Valais–Wallis

16:00

17:00

LAB VISIT 1**GEM Lab: Power-to-X, AEMWE & rSOC Demonstrator****17:00**

onwards

FREE EVENING**Free evening**

WEDNESDAY**02 SEPTEMBER****Hydropower & Pumped Storage**

Grande Dixence & EPFL Sion

08:50

17:00

EXCURSION**Grande Dixence Dam: Guided Visit and inside view***Bus departs from Sion at 9:06 · lunch included. The tallest gravity dam in the world.***17:15**

19:30

POSTER**APERO****Poster Session — All Participants Present Their Research***PhD and postdoc posters, plus an aperitif. A relaxed setting for networking and sharing ideas.***19:30**

onwards

FREE EVENING**Free evening**

THURSDAY**03 SEPTEMBER****Thermal & Chemical Storage**

EPFL Lausanne Campus

07:39

09:09

TRAVEL

Train: Sion → EPFL Lausanne Campus**09:30**

10:30

LECTURE 6

GRZ Swiss Company: Metal Hydrides Hydrogen Solutions: Research and Applications

Dr. Tai Sun — GRZ Technologies

10:45

11:45

LECTURE 7

Thermal Energy Storage: Principles & Technologies

Prof. Philipp Schütz — HSLU Lucern

12:00 – 13:00 · Lunch break

13:00

14:15

LECTURE 8

LAB VISIT 2

Power-to-X: Solar Fuels & Chemical Storage Pathways + LRESE Lab Visit

Prof. Sophia Haussener — EPFL

14:30

16:30

LECTURE 9

LAB VISIT 3

Seeing the Grid in Real Time: Monitoring & Control + DESL Lab Visit

Prof. Mario Paolone — EPFL

16:47

23:12

DINNER

CGN Boat to Le Bouveret + Dinner by the Lake + Return trip to Sion

*From 16:47 to 17:22, a train runs from EPFL Lausanne Campus to Vevey.
At 18:00 there is a CGN boat trip from Vevey to Le Bouveret, arriving at 18:50.
Dinner follows by the lake in Le Bouveret from 20:00 to 22:00.
Train back to Sion from Le Bouveret from 22:00 to 23:12.*

FRIDAY**04 SEPTEMBER****Future Perspectives**

EPFL Valais · Wallis, Sion

08:45

10:15

LAB VISIT 4**Hydropower Lab: Pumped Hydro and Beyond**

Prof. Cécile Münch-Alligné — Hydro Alps Lab at HES-SO Valais–Wallis

10:30

11:30

LECTURE 10**CONCLUSION****Future Perspectives on Energy Storage**

Prof. Jan Van Herle — EPFL

12:00 – 13:30 · Farewell lunch

SPEAKERS

Academics & industry, in order of appearance

MON 31 Aug 15:30	Prof. Emeritus Alfred Rufer Energy on Demand — Why Storage Is Central	EPFL
TUE 01 Sep 08:30	Prof. Antoni Forner Cuenca Large-scale Redox Flow Batteries	TU/e
TUE 01 Sep 09:45	Prof. Priscilla Caliendo Batteries Fundamentals & E-Mobility	BFH
TUE 01 Sep 11:00	Dr. Roland Gallay Supercapacitors Challenge Batteries	Garmanage
TUE 01 Sep 14:45	Prof. Fabrizio Sossan Storage as a Grid Service	HES-SO
THU 03 Sep 09:30	Dr. Tai Sun Hydride Storage, Fuel Cells & Electrolyzers	GRZ
THU 03 Sep 10:45	Prof. Philipp Schütz Thermal Energy Storage	HSLU
THU 03 Sep 13:00	Prof. Sophia Haussener Power-to-X & Solar Fuels	EPFL · LRESE
THU 03 Sep 14:30	Prof. Mario Paolone Real-Time Grid Monitoring & Control	EPFL · DESL
FRI 04 Sep 08:45	Prof. Cécile Münch-Alligné Hydropower & Pumped Hydro	HES-SO
FRI 04 Sep 10:30	Prof. Jan Van Herle Future Perspectives on Energy Storage	EPFL · GEM

TRAVEL

Getting to Sion

ARRIVAL

The school opens on the afternoon of **Monday 31 August**, first lecture at **15:30**, leaving the morning to travel and check in.
Lunch on arrival day is not included.

DEPARTURE

The school concludes on **Friday 4 September**; a farewell lunch runs until **13:30**, after which participants are free to depart. Book return travel from Friday afternoon onwards.

Travel to Sion :**From Geneva airport :**

A direct train from Geneva airport to Sion is around 2h05 and cost CHF 56.00 for 2nd class

From Zürich airport :

Trains from Zürich airport to Sion are not direct, travel time is from 2h50 to 4h with change in Berne and Visp or in Lausanne. Price for a 2nd class ticket is around 100 to 110 CHF



Train connections to Sion from Geneva and Zürich airports — EPFL Valais · Wallis, Sion.

FROM GENEVA AIRPORT

Genève-Aéroport → Sion

Journey ≈ 2h05
2nd class from CHF 56
1st class from CHF 96

Direct · no change

FROM ZÜRICH AIRPORT

Zürich Flughafen → Sion

Journey 2h50–4h00
2nd class from CHF 105
1st class from CHF 170

1 change · via Berne–Visp or Lausanne

Tip: Swiss tickets are date-specific, point-to-point fares. Book ahead on **sbb.ch**: the discounted **Super Saver** fare is tied to a specific train and limited in number. No seat reservation is needed on standard intercity journeys. ECTS credits are awarded only to participants who attend the full Summer School.

LOCATIONS & OTHER PRACTICAL INFO

DAILY MEETING POINTS

Where and when to meet each day

MON 31 Aug	i17 - Rue de l'Industrie 17, 1951 Sion	15:15
TUE 01 Sep	Alpole - Rte des Ronquos 86, 1950 Sion	08:15
WED 02 Sep	Sion train station - Place de la Gare 1, 1950 Sion	08:45
THU 03 Sep	Sion train station - Place de la Gare 1, 1950 Sion	07:25
FRI 04 Sep	Alpole - Rte des Ronquos 86, 1950 Sion	08:30

REGISTRATION FEE

EuroTech partners	100 CHF
Other institutions	200 CHF
ECTS credits	On request

ACCOMMODATION

HI Sion (Holiday Inn) ≈ 3 min walk.

reservation@hixsion.ch

140 CHF/night EPFL RATE with code EPFL_EUROTECH26

Alaia Hostel ≈ 2 min walk · alaia.ch/hostel

Other hotels: **IBIS**, **Moxy**, and **Hotel Castel**

WIFI INFO

WiFi: EPFL

User: summerschool

Password: Eurotech#2026

Questions? eurotech2026@epfl.ch

SAFETY**HYGIENE & SECURITY****Hygiene and safety rules at work**

EPFL Valais Wallis, Sion – applies in all building and laboratories

ProhibitionNo entry for
unauthorized
personsOpen flame
prohibitedDo not
extinguish with
water**Obligations**Mandatory lab
coatMandatory work
suitMandatory eye
protection**Warning**Biological
hazardCorrosive
materialFlammable
material

Eating is not allowed in classrooms and laboratories, it is only allowed in the places intended for that purpose.

Building security

The access badge is personal and non-transferable. Do not open doors to anyone who does not have the rights to enter



Filming and taking pictures is prohibited unless authorized by Mediacom



Do not disable security systems



The site is under video surveillance

Assistance or emergency

24 / 24 · 7 / 7

EPFL LANDLINE

115

PERSONAL PHONE

021 693 30 00

EPFL CAMPUS APP

SOS

Outside EPFL: Police 117 · Fire services 118 · Ambulance 144

EMERGENCY PROCEDURES

Fire, first aid and evacuation

Alarm: 115 (EPFL landline) · 021 693 30 00 · SOS in the EPFL Campus app

Fire procedure



Raise the alarm

Fire alarm · 021 693 30 00 or 115 (landline) or SOS on the EPFL Campus app



Leave the area

Close the doors and windows · assist with evacuation · follow the signs for the escape routes



Fight fire

Use the available extinguishing means · act without putting yourself at risk



Guide and inform

Inform the first rescue services (people to be rescued, hazardous materials)

First aid procedure



Raise the alarm

021 693 30 00 or 115 (landline) or SOS on the EPFL Campus app



Ensure safety

Keep yourself safe · keep the victim safe · secure the area



Provide first aid

Give the care you are trained for and reassure the victim



Guide and inform

Inform the rescue services on arrival

Evacuation procedure



When the siren resounds, leave the building without delay



Follow the signage · take your belongings with you



Don't turn back



Proceed to the assembly point: the parking lot in front of each building

Fire prevention rules

In addition for your safety, we request you to behave in a responsible manner and respect the following points:

- Keep escape routes clear of clutter
- Do not block fire doors
- Dispose of cardboard and other packaging as you go
- Know the nearest emergency exit and how to use an extinguisher

