The SCCER-SoE Annual Conference 2019 presents insights into our research highlights, puts a strong emphasis on the project posters, and offers many opportunities for personal exchange.

We will start the first day with the status of the energy law implementation and the current state of work in the SCCER-SoE. The afternoon is dedicated to highlights of the future supply of energy regarding risk, social acceptance, global observation and energy system simulation and modelling.

On the second day, two sessions for hydropower and geo-energy will run in parallel. The sessions have the same objectives: In the morning, we will focus on the research highlights and in the afternoon, we will meet with stakeholders and customers for knowledge and technology transfer workshops.
### Tuesday, 3 September 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>11:15</td>
<td>Registration and Coffee</td>
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<tr>
<td>12:00</td>
<td>Welcome Address (Andreas Mortensen, EPFL). Room: CO 2 (plenum)</td>
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<tr>
<td>12:05</td>
<td>Session 1: Introduction</td>
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<tr>
<td></td>
<td>Chair: François Avellan, EPFL</td>
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<td>Room: CO 2 (plenum)</td>
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<tr>
<td>12:05</td>
<td>Energy Research at EPFL (Mario Paolone, EPFL)</td>
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<td>12:25</td>
<td>Status of the Swiss Energy Transition: Where are we now and what comes next (Wolfgang Elsenbast, SFOE)</td>
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<td>12:45</td>
<td>Status of the SCCER-SoE (Domenico Giardini, ETHZ)</td>
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<tr>
<td>13:05</td>
<td>Lunch and Poster Session</td>
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<tr>
<td>15:00</td>
<td>Session 2: Highlights from WP 4 Future Supply of Energy</td>
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<td></td>
<td>Chair: Peter Burgherr, PSI</td>
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<td></td>
<td>Room: CO 2 (plenum)</td>
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<tr>
<td>15:00</td>
<td>Accident Risk Assessment for Hydropower and Deep Geothermal Energy Systems (Matteo Spada, PSI)</td>
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<td>15:20</td>
<td>Induced Seismicity Risk: its Governance Involving Scientists, Authorities and the Public (Arnaud Mignan, ETHZ and Olivier Ejderyan, ETHZ)</td>
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<tr>
<td>15:40</td>
<td>The Contribution of the Swiss Mountains to the Energy Turnaround with New Renewables (Michael Lehning, EPFL)</td>
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<tr>
<td>16:00</td>
<td>Missing Perspectives in Swiss Electricity Supply Models and Scenarios (Evelina Trutnevyte, UNIGE)</td>
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<tr>
<td>16:20</td>
<td>Implications of European Climate and Energy Policy for the Swiss Power Sector (Anthony Patt, ETHZ)</td>
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<td>16:40</td>
<td>Scenarios for 2050: the Role of Hydropower and Geoenergies (Gianfranco Guidati, ETHZ)</td>
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<tr>
<td>17:00</td>
<td>Aperitif and Dinner</td>
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### Wednesday, 4 September 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 3a: Highlights from Geo-Energy Research</th>
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<tbody>
<tr>
<td></td>
<td>Chairs: Rolf Krause, USI, and Andrea Moscariello, UNIGE</td>
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<tr>
<td></td>
<td>Room: CO 2</td>
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<tr>
<td>9:00</td>
<td>Numerical Simulation and Uncertainty Quantification for Reservoir Engineering (Rolf Krause, USI)</td>
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<tr>
<td>9:15</td>
<td>Scenario Modeling for High Temperature Underground Heat Storage (Thomas Driesner, ETHZ)</td>
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<td>9:30</td>
<td>High Performance Computing Based Assessment of Hydraulic Stimulation (Maria Nestola, USI)</td>
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<tr>
<td>9:45</td>
<td>Hydromechanical Coupling in Heterogeneous and Fractured Media (Marco Favino, UNIL)</td>
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<tr>
<td>10:00</td>
<td>Using a THMC Simulator to Examine the Effects of Porosity Reduction on Pore Pressure Development in Geothermal Reservoirs (Batoul Gisler, UNINE)</td>
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<tr>
<td>10:15</td>
<td>Coffee and Poster Session</td>
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<td>Session 3a – Continued on Next Page</td>
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<table>
<thead>
<tr>
<th>Time</th>
<th>Session 3b: Highlights from Hydropower Research</th>
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<tbody>
<tr>
<td></td>
<td>Chair: Robert Boes, ETHZ</td>
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<td>Room: ELA 1</td>
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<tr>
<td>9:00</td>
<td>Four Years of Sediment Transport Measurements in the Albula River Upstreams of the Hydropower Dam Solis (Dieter Rickenmann, WSL)</td>
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<td>9:15</td>
<td>Change in Run-Of-River Power Production Calculated with the New Climate Change Scenarios CH2018 (Tobias Wechsler, WSL)</td>
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<td>9:30</td>
<td>H2020 XFLEX Project (François Avellan, EPFL)</td>
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<td>9:45</td>
<td>Dam Heightening Options in Switzerland to Increase Hydro Storage Capacity and Winter Production (Michelle Müller-Hagmann, ETHZ, tbc)</td>
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<tr>
<td>10:00</td>
<td>Reach-Scale Effects of Small Hydropower Plants (Katharina Lange, EAWAG)</td>
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<tr>
<td>10:20</td>
<td>Coffee and Poster Session</td>
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<tr>
<td></td>
<td>Session 3b – Continued on Next Page</td>
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</tbody>
</table>
Session 4a: Knowledge and Technology Transfer for Geoenergies
Chair: Gianfranco Guidati, ETHZ
Room: CO 2
10:35 Geophysical Characterization of Fractured Rocks – a Rock Physics Perspective (Eva Caspari, UNIL)
10:50 The Gasometer-based CO2 Plume Geothermal Energy Storage System (Benjamin Adams, ETHZ)
11:05 Revised Potential of the Muschelkalk Formation (Central Swiss Plateau) for CO2 Storage and Geothermal Energy (Larryn Diamond, UNIBE)
11:20 CO2 Sequestration within the ELEGANCY-Act Project: Progress of the CS-D Experiment on Faulted Rock in Mont Terri (Melchior Grab, ETHZ)
11:35 Influence of Reservoir Geology on Seismic Response During Decameter Scale Hydraulic Stimulations in Crystalline Rock (Linus Villiger, ETHZ)
11:50 Bedretto Underground Laboratory for Geoenergies: Ongoing Activities and Future Opportunities (Katrin Plenkers, ETHZ)
12:00 Lunch and Poster Session
13:50 Poster Award. Room: CO 2 (plenum)

Session 4b: Knowledge and Technology Transfer for Hydropower
Chair: Pedro Manso, EPFL
Room: ELA 1
10:40 Fish Protection and Downstream Migration at Low-Head Hydropower Plants (Julian Meister, ETHZ)
11:00 Balancing Hydropower Production and Environment through Flexible Operation (Andrea Castelletti, ETHZ)
11:15 Climate Change Effects on Reservoir Inflows and Hydropower Operation (Nadav Peleg, ETHZ and Andrea Castelletti, ETHZ)
11:30 SmallFLEX – Demonstrator for Flexible Small Hydropower Plants (Cécile Münch-Alligné, HES-SO)
11:45 Renovhydro: How Synergies Between Utilities an Provide Flexibility and Hydroparking Mitigation. Case Study of Upper Rhône Valley (Christophe Nicolet, Powervision Engineering)
12:00 Lunch and Poster Session
13:50 Poster Award. Room: CO 2 (plenum)

Session 4a: Knowledge and Technology Transfer for Geoenergies
Chair: Gianfranco Guidati, ETHZ
Room: CO 2
14:00 Funding Opportunities Post-2020 – A Chance to Transfer Knowledge Into Practice (Gunter Siddiqi, FOEN)
14:15 Solution for Shallow Geothermal Energy Exploitation: From Building Integration to Lifetime Management (Benoît Cousin, EPFL)
14:30 HEATSTORE: Aquifer Thermal Energy Storage in Switzerland (Luca Guglielmetti, UNIGE, Carole Nawratil de Bono, SIG, Peter Meier, GeoEnergie Suisse, Thomas Driesner, ETHZ, Larryn Diamond, UNIBE, and Benoît Valley, UNINE)

Session 4b: Knowledge and Technology Transfer for Hydropower
Chair: Pedro Manso, EPFL
Room: ELA 1
14:00 Welcome (Anton Schleiss, EPFL, and Pedro Manso, EPFL)
14:10 Why Swiss Hydropower Needs Flexibility: The Hydropower Producer’s View (Daniel Fischlin, KWO)
14:25 Research Challenges of Flexible Hydropower Generation (Robert Boes, ETHZ)
14:35 P1 Hydroparking Mitigation (Philipp Meier, MeteoSwiss)
14:50 P2 Impulse Wave Risk Management in Montainous Reservoirs (Frederic Evers, ETHZ)
15:05 Coffee and Poster Session
15:25 P3 Opportunities for Future Hydropower Storage Identified by Data Mining from Multi-Decadal Past Behaviours (José Pedro Matos, Stucky)
15:40 P4 Gestion innovative des sédiments pour une cascade de réservoirs alpins (Samuel Vorlet, EPFL)
15:55 P5 Umgang mit Feinsedimenten an Stauseen unter Berücksichtigung der Turbinenabrasion (David Felix, ETHZ)
16:10 P6 Preventing Turbine Instability During Multiple Start/Stop Procedures (Jean Decaix, HES-SO, and Vlad Hasmatuchi, HES-SO)
16:25 Final Word from Industrial Partner (tbd, KWO)
16:35 Discussion (All)
16:50 Closure (Pedro Manso, EPFL)

* The talks of these sessions will be held in German or French and will simultaneously be translated into the other language.
Registration

Personal registration is required.
1. Go to this website and create a user account.
2. Register your participation until 20 August 2019.
   Entrance is free.

Poster registration is required.
1. Log in to this website with your user account.
2. Register your poster until 20 August 2019.
3. Upload the pdf file of your poster until 4 September 2019.

* You can edit the data of your poster (title etc.) and the pdf file at any time until 4 September 2019.

Call for Posters

Academic research partners are required to present their project on a poster.
Formatting instructions:
- A0 size, vertical / portrait format only
- If a project is funded by the SCCER-SoE, the authors are required to use this poster template.

The top three posters made by PhD students and scientific assistants will be awarded. Please note that scientific assistants need to be younger than 29.

Accommodation

If required, accommodation needs to be arranged independently and in accordance with the expense regulations of the institutions. There are numerous accommodation options in Lausanne and the surrounding area. Some hotels may offer discounts if you use code EPFL when booking.
The following hotel offers rooms at a special discounted rate on a first-come-first-served basis:
- Hotel Aulac, book on website with code: SCCER-SoE

Deadlines

Personal and poster registration: 20 August 2019
Poster upload: 4 September 2019

Contact

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8092 Zurich
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Academic Research Partners

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