

# Call for Abstracts

International Symposium  
on

## Dams and Reservoirs under Changing Challenges

June 1, 2011  
Lucerne, Switzerland



organized by the  
Swiss Committee on Dams  
during the 79th Annual Meeting of ICOLD

Hosted by

**ETH**  
Eidgenössische Technische Hochschule Zürich  
Swiss Federal Institute of Technology Zurich

**EPFL**  
ÉCOLE POLYTECHNIQUE  
FÉDÉRALE DE LAUSANNE



## **About the Symposium – Invitation**

The Swiss Committee on Dams is pleased to invite professionals and researchers in the field of dam design and construction as well as dam owners to the International Symposium «Dams and Reservoirs under Changing Challenges». The symposium will be held during the 79th Annual Meeting of ICOLD from May 29 to June 3, 2011 in Lucerne, Switzerland.

The Symposium will serve as a perfect venue for practitioners, engineers, researchers, scientists, managers and decision makers from all over the world to exchange ideas about the latest developments dealing with dams and reservoirs under changing environmental and socioeconomic conditions.

With a surface area of approx. 40 000 km<sup>2</sup> and 205 large dams in operation, Switzerland is the country with the highest density of dams in the world. 48 dams exceed 60 m in height, and 25 are more than 100 m high. With a height of 285 m, the almost 50 years old Grande Dixence dam is still the highest concrete dam in the world. All dams are well integrated in the environment and contribute to the economic prosperity of the country.

Beside international best practice the participants will not only learn from this Swiss dam knowledge and competence during the Symposium on June 1, but will also have the occasion to visit existing dams and several hydropower projects under construction during a technical tour on June 2.

The language of the Symposium is English. Simultaneous translation of the presentations will be made in French and German.

## **Submission procedure**

Authors are invited to submit an abstract of 300–400 words (1 page) in one or more of the areas identified below.

Only authors whose abstracts have been selected will be invited to submit full papers, which will be published in the conference proceedings in collaboration with a scientific publisher.

Detailed instructions on abstract preparation can be found at [www.swissdams.ch](http://www.swissdams.ch). Abstracts can be submitted by e-mail to [swissdams@stucky.ch](mailto:swissdams@stucky.ch).

## **Symposium Themes**

The changing challenges for dams and reservoirs in this century will be discussed under the following topics:

- A. Long-term behavior of dams
  - Maintenance and surveillance
  - Safety concepts
  - Emergency action plans
  - Alkali aggregate reaction (AAR) of dam concrete
  - Rehabilitation and uprating
  
- B. Dams and climate change
  - Long-term operation of dams
  - Sedimentation of reservoirs
  - Water resources management of reservoirs
  - Flood passage and management
  - Water transfer over long distances
  - Water supply and irrigation
  - Energy production
  
- C. Dams and natural hazards
  - Earthquakes
  - Floods and related release structures
  - Landslides and avalanches into reservoirs
  - Extreme climate conditions
  
- D. Dams in a sound environment
  - Tourism and recreation
  - Contribution to renewable energy production
  - Ecological mitigation measures
  - Navigation
  - Irrigation and food production

The above list is not exhaustive and other themes related to these topics are welcome to the Symposium.

## **Venue: Lucerne, Switzerland**

### **Switzerland, where mountain magic meets hospitality and tradition**

In the last century, Switzerland managed to transform from a country of peasants and artisans into an industrialized nation with a high standard of living. Land of mountains, rivers and lakes, but with no significant mineral resources, Switzerland had to rely on hydropower to produce a large part of the energy required for its development. Reservoirs were created as early as 100 years ago in the Alps, some of them impounded by very large dams. Headrace galleries and penstocks were built under difficult conditions to transport the precious source of energy to powerhouses. Nowadays many of these reservoirs add to the natural beauty of the Alps by reflecting mountain pastures and peaks in their crystal blue water.

### **Lucerne in the heart of Switzerland**

Geographically, Lucerne lies in the heart of Switzerland; historically, it is the birthplace of Switzerland. Lake Lucerne Region is one of the most diverse vacation and excursion regions in all of Switzerland. Its landscape is shaped by the spectacular world of the Alps, covered with a magical blanket of fluffy snow in winter. Lake Lucerne Region is the «pocketsize region» of Switzerland. No other region offers so many memorable Swiss vacation moments in such a small amount of space.

### **Venue: KKL Luzern Culture and Convention Centre**

The Culture and Convention Centre Lucerne (KKL Luzern) ranks today as one of the most spectacular modern buildings in Switzerland. French architect Jean Nouvel combined design and aesthetics to create the new landmark of the city of Lucerne.

The centerpiece of the KKL Luzern is the concert hall with its acoustics, ensuring memorable concert experiences and inspiring the world's best conductors, orchestras and soloists to peak performances. The Symposium on «Dams and Reservoirs under Changing Challenges» will be held in this beautiful concert hall.

In the evening of June 1, 2011 a special concert will be given for all participants.



## **Schedule – Key Dates**

Abstract submission deadline:	June 30, 2010
Notification of acceptance:	July 31, 2010
Full paper submission deadline:	October 30, 2010
Final notification of paper acceptance:	December 30, 2010

## **Local Organizing Committee**

### **Conference chairs**

Prof. Dr. Anton Schleiss

Chairman Swiss Committee on Dams, Laboratory of Hydraulic Constructions (LCH), Ecole Polytechnique Fédérale de Lausanne (EPFL)

Prof. Dr. Robert Boes

Laboratory of Hydraulics, Hydrology and Glaciology (VAW), Swiss Federal Institute of Technology (ETH) Zurich

### **General Secretary**

Dr. Bernard Joos

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Prof. Dr. Peter Tschernutter, Austria

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## **Organization Contact**

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