

**19-25  
June  
2021**

# **5th international conference on Soil, Bio- and Eco-Engineering**



## **Conference venue:**

Museum of natural history  
Bernastrasse 15, 3005 Bern, Switzerland

## **Hosts:**

Bern University of Applied Sciences, EcorisQ

*For more info and registration*

**[www.ecorisqevents.com](http://www.ecorisqevents.com)**

**ecorisQ.**



Bern University of Applied Sciences  
► School of Agricultural, Forest  
and Food Sciences HAFL

# Congress SBEE2021

As in the preceding SBEE conference series, we will bring together researchers, practitioners, geotechnical and civil engineers, biologists, ecologists, geomorphologists and foresters to discuss current problems in soil-resource sustainability, soil- erosion and slope-stability research, and how to address these problems using soil, bio- and eco-engineering techniques.

## Conference topics include

- Root-soil interactions and distribution
- Root reinforcement
- Soil erosion and conservation
- Riverbank and coastline protection measures
- Slope stability modelling
- Effects of vegetation on hillslope hydrology
- Bioengineering, ecology and biodiversity
- Eco-DRR measures, protection forests, and soil bioengineering
- Risk management and decision support systems
- Benefits and liabilities in slope and erosion control

## Conference schedule (19th-25th June)

	19 <sup>th</sup> Sat	20 <sup>th</sup> Sun	21 <sup>th</sup> Mon	22 <sup>th</sup> Tue	23 <sup>th</sup> Wed	24 <sup>th</sup> Thu	25 <sup>th</sup> Fri
8.30 a.m. - 10 a.m.	Tools courses	Tools courses	Keynote S1	Keynote S5	Keynote S9	Excursion	Practical courses
10.30 a.m. - 12 a.m.	Tools courses	Tools courses	Keynote S2	Keynote S6	Keynote S10	Excursion	Practical courses
1.30 p.m. - 3 p.m.			Keynote S3	Keynote S7	Keynote S11	Excursion	Practical courses
3.30 p.m. - 5 p.m.		Welcome gala	Keynote S4	Keynote S8	Keynote S12	Excursion	Practical courses
5 p.m. - 7 a.p.m.		Welcome gala	Posters	Posters	Posters	Excursion	EcorisQ GA
		Welcome gala			Dinner	Excursion	

# **Pre-conference courses (at BFH HAFL, Zollikofen)**

from 19<sup>th</sup> to 20<sup>th</sup> JUNE

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Tool courses - Academic workshops (for PhD students, post-docs, research associates, etc.).

- RBM and field measurements (MURGIA I. & GIADROSSICH F.), root reinforcement modeling and measurements

## **Scientific sessions, Monday – Wednesday (at Museum of natural history, Bern)**

21<sup>th</sup> JUNE

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- **S1 Root distribution modelling and measurements**  
(keynote: I.C. MEIER; chair: A. STOKES)
- **S2 Root reinforcement modelling and measurements**  
(keynote: F. GIADROSSICH; chair: K. LOADES)
- **S3 Surface erosion and vegetation**  
(keynote: J. POESEN; chair: S. BURGOS)
- **S4 Shallow landslides and vegetation (hillslope scale)**  
(keynote: Z. MAO; chair: D. COHEN)

22<sup>th</sup> JUNE

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- **S5 Shallow landslides and vegetation (catchment scale)**  
(keynote: T. HALES; chair: C. PHILLIPS)
- **S6 Hydopedology and vegetation**  
(keynote: T. BOGAARD; chair: M. SCHWARZ)
- **S7 Riverbank stability and vegetation**  
(keynote: P. PERONA; chair: E. GASSER)
- **S8 Protection forest management**  
(keynote: R. SIDLE; chair: J.J. THORMANN)

23<sup>th</sup> JUNE

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- **S9 Soil bioengineering and temporal technical construction in slope stability**  
(keynote: G. DE CESARE; chair: G.B. BISCHETTI)
- **S10 Soil bioengineering and temporal technical construction in riverbank stability**  
(keynote: P. RAYMOND; chair: H.-P. RAUCH)
- **S11 Bio-economics for SBEE**  
(keynote: L.M. CASTRO; chair: F. LECHTHALER)
- **S12 The role of vegetation in eco-DRR in mountain regions**  
(keynote: C. MOOS; chair: L. DORREN)

# Excursions

## 24<sup>th</sup> JUNE

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- Protection forest management in the Swiss Alps (disturbances, coppice woods, neophytes): Adelboden, canton of Bern (J.J. THORMANN)
- Bioengineering and torrent control measures: canton of Bern (M. SCHWARZ)

## Post-conference courses on model applications (at BFH HAFL, Zollikofen)

## 25<sup>th</sup> JUNE

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Post-conference courses are the moment where science meet practice! Choosing one of the courses, scientists and practitioners have the opportunity to discuss in detail the application of methods or tools for issues related to bioengineering measures:

- **SOSlope (D. COHEN)**, slope stability and vegetation (hillslope scale): SOSlope is a hydro-mechanical model of slope stability (depth < 2 m) that computes the factor of safety considering the mechanical forces due to roots and soil at the hillslope scale (Cohen and Schwarz, 2017).
- **Rockyfor3D (L. DORREN)**, rockfall and vegetation: Rockyfor3D is an application that explicitly and realistically integrates the barrier effect of trees on falling rocks.
- **BankforNET (M. SCHWARZ)**, streambank stability and vegetation: BankforNET (Gasser et al., 2020) is a one-dimensional, probabilistic and scenario-based model to simulate hydraulic streambank erosion considering the effects of roots and randomness in the Shields entrainment parameter
- **SlideforMAP (F. VAN ZADELHOFF)**, slope stability and vegetation (catchment scale): SlideforMAP is a probabilistic and event-based model that generates a spatial distribution of shallow landslide probability considering the effect of vegetation at regional scale.
- **Tree stability (L. SANI)**, method for the tree stability assessment: this course gives the possibility to have a deeper understanding of the mechanisms that lead to tree falling and how to prevent it.

# Further information

**New: The option to participate online in the scientific sessions (Monday to Wednesday) is introduced**

## Conference fee

CHF 500 (late registration: 650) | Conference dinner: CHF 60 | Pre-conference courses: CHF 150 (late registration: 200) | Excursions: CHF 150 | Post-conference courses: CHF 250 (late registration: 350)

## Online conference fee

CHF 250 (late registration: 350)

## Registration

Please register at: [www.ecorisqevents.com](http://www.ecorisqevents.com)  
(Early-bird registration closes: 30 April 2021)

## Directions

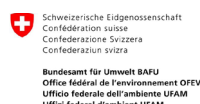
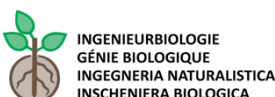
Museum of natural history, Bernastrasse 15, 3005 Bern (Switzerland)  
[www.nmbe.ch/en/planing-your-vist](http://www.nmbe.ch/en/planing-your-vist)

BFH-HAFL, Länggasse 85, 3052 Zollikofen (Bern, Switzerland)  
<https://www.bfh.ch/hafl/en/about-hafl/locations-facilities/>

## Contact

Niels Hollard - [niels.hollard@bfh.ch](mailto:niels.hollard@bfh.ch) or  
Dr.Massimiliano Schwarz - [massimiliano.schwarz@bfh.ch](mailto:massimiliano.schwarz@bfh.ch)

## Partner organisations



FACHSTELLE FÜR FORSTLICHE BAUTECHNIK  
CENTRE POUR LE GÉNIE FORESTIER  
CENTRO PER IL GENIO FORESTALE  
POST SPEZIALISÀ PER TECNICA DA CONSTRUZZIUN FORESTALA

Bund, Kantone und Fürstentum Liechtenstein

