

## 19. Gumpensteiner Lysimetertagung

### Web-Konferenz

Lysimeter und  
Bodenwasserhaushalt:  
Trockenheit - Bewässerung  
- Ertragssicherheit

Lysimeter and soil water  
management: drought -  
irrigation - yield stability

13. und 14. April 2021

08.30 Technische Einführung - Online Webinar-Tool (Matthias Kandolf)

08.50 Begrüßung und Eröffnung

5' A. Hausleitner

5' R. Nolz

**Session 1: Bodenwasserhaushalt**

Vorsitz: A. Bohner

09.00 Comparison of lysimeter and scintilometer data with reference evapotranspiration  
20' M. Herndl et al.

09.20 Estimating crop evapotranspiration of managed alpine grassland using remotely sensed LAI  
20' M. Vremec et al.

09.40 Partitioning evapotranspiration based on lysimeter water balance data and isotope profiles  
20' G. Liebhard et al.

10.00 Evaluation of evapotranspiration methods by means of weighing lysimeter data in Argentina  
20' A.M.G. Faraminán et al.

10.20 Multi-source characterisation of non-rainfall water inputs to a semi-arid ecosystem  
20' S. Paulus et al.

10.40 Water fluxes in semiarid soils: A comparison between grassland and agricultural land  
20' L. Haselow et al.

11.00 Pause

- 11.20 Investigating shrub-encroached mountain grassland using high precision lysimeters  
20' G. Leitinger et al.
- 11.40 Vergleich der Bodenfeuchteausschöpfung eines Lößbodens im Lysimeter und im Feld unter Ackerkulturen  
20' S. Knoblauch
- 12.00 Wasser- und Elementbilanzen von erosionsbeeinflussten Ackerböden in wägbaren Lysimetern  
20' H.H. Gerke et al.
- 12.20 Pflanzenwachstum und Bodenwasserflüsse an von Erosion betroffenen Ackerflächen  
20' J. Groh et al.
- 12.40 Pause

**Session 2 - Poster**

Vorsitz: M. Herndl

- 13.40 A comparison of bulk and wet-only deposition at the mountain pasture site Stoderzinken  
M. Schink et al.
- 13.45 Ecohydrology of mountain grassland under global change  
M. Bahn et al.
- 13.50 Drought and heat cause a shift in vegetation composition in a mountain grassland  
E. Tello-Garcia et al.
- 13.55 Water use of lawns determined in weighing lysimeters  
J. Zsembeli et al.
- 14.00 Impact of crop residues on soil water evaporation in weighing lysimeters  
M. Jancsó et al.

- 14.05 Predicting bare soil evaporation by numerical modeling - the role of hydraulic functions  
D.C. Joshi et al.
- 14.10 Estimating soil hydraulic parameters from lysimeter data: a Bayesian perspective  
M. Schübl et al.
- 14.15 Abschätzung und Reduktion der Nitratauswaschung im Feldgemüsebau  
E. Spiess et al.
- 14.20 Substratevaluierung anhand von Stadtbaumlysimetern mit pflanzenphysiologischem Monitoring  
A. Zeiser et al.
- 14.25 Zum Wasserhaushalt grundwassernaher Standorte im Wechselspiel von Nass- und Trockenjahren  
O. Dietrich et al.
- 14.30 Modellierung hydraulischer und geochemischer Prozesse in Grundwasser-Lysimetern  
M. Davies et al.
- 14.35 Diskussion der Poster
- 15.05 Ende 1. Tag Web-Konferenz

Mittwoch, 14. April 2021

**Session 3: Nährstoffhaushalt**

Vorsitz: A. Bohner

- 08.45 Technische Einführung - Online Webinar-Tool (Matthias Kandolf)
- 09.00 Model-based assessment of the impact of irrigation on groundwater quantity and quality  
20' J. Fank and G. Klammler
- 09.20 Identification of mechanisms controlling nitrogen export from agricultural lysimeters  
20' S. Werisch and D. Burghardt

- 09.40 The effects of natural drying and subsequent re-humidification on the nitrogen leaching  
20' H. Rupp and R. Meissner
- 10.00 Auswirkungen des Klimawandels auf die Stickstoffbilanz eines Grünlandökosystems  
20' M. Giraud et al.
- 10.20 Nitratauswaschung unter Gemüse bei unterschiedlichem Ernterückstandsmanagement  
20' E. Spiess et al.
- 10.40 Pause

#### Session 4: Schadstoffe

Vorsitz: M. Herndl

- 11.00 Leaching of pesticides in lysimeter- and field trials with sandy loam soils  
20' N. Tauchnitz et al.
- 11.20 Transport von organischen Umweltchemikalien in Lößböden  
20' Th. Demmel et al.

#### Session 5: Sonstige

Vorsitz: M. Herndl

- 11.40 Wasserverbrauch und Wachstumsdynamik von *Quercus frainetto* und *Tilia cordata*  
20' M. Schreiner et al.
- 12.00 New developments in lysimeter technology  
20' G. Klammel et al.
- 12.20 Generaldiskussion  
R. Nolz
- 12.50 Ende der Web-Konferenz

# **Informations about Web conference**

## **Registration until thursday, 8<sup>th</sup> of April 2021**

A free registration is required until 8<sup>th</sup> of April, 24 o'clock.  
Only registered people can participate at the web conference.

## **Technical informations concerning web conference**

For the participation at the web conference you will receive the login details via email after successful registration. For safety reasons the login details will be send 24 hours prior to the beginning of the conference.

For participation at the web conference you need a technical terminal equipment (laptop, computer, tablet, smartphone) with internet connection. A registration at the provider of the web tool is not necessary. The installation file will be automatically downloaded when you open the link.

Please take care of a good internet connection and close all other programs and downloads. A headset and a webcam would be an advantage, but is not essential.

If you have opened the link of participation, please enter with your name (first and last name) and the name of your company/institution.

The web conference will be open at tuesday, 13<sup>th</sup> of April 2021 from 8:00 a.m. You can enter before the beginning of the web conference in order to make a technique check. At 8:30 o'clock a short technical introduction will take place.

For organisational questions, please contact Brigitte Marold ([brigitte.marold@raumberg-gumpenstein.at](mailto:brigitte.marold@raumberg-gumpenstein.at)).

For technical questions, please contact Matthias Kandolf ([matthias.kandolf@raumberg-gumpenstein.at](mailto:matthias.kandolf@raumberg-gumpenstein.at)).

We are looking forward to see you at the 19<sup>th</sup> lysimeter conference held in the form of a web conference.

# Organisation

Dr. Andreas Bohner

Brigitte Marold

AREC Raumberg-Gumpenstein

Department of Environmental Ecology

Raumberg 38, A-8952 Irdning-Donnersbachtal

Tel.: ++43 3682 22451-334

Fax: ++43 3682 22451-210

[brigitte.marold@raumberg-gumpenstein.at](mailto:brigitte.marold@raumberg-gumpenstein.at)

## Lysimeter research group

A Web-conference in cooperation with the University

College for Agricultural and Environmental Pedagogy

Vienna

Binding registration by the **8<sup>th</sup> of April 2021** at the  
latest online via [www.raumberg-gumpenstein.at](http://www.raumberg-gumpenstein.at)

## Proceedings

We will prepare proceedings, available free of charge at the beginning of the conference as a pdf-version via the homepage of AREC Raumberg-Gumpenstein. Moreover it is also possible to purchase the proceedings via postal delivery (Euro 15,00).

## Slides of the oral presentations

If an approval will be given by the speaker, the slides of the oral presentation (pdf-version) will be available free of charge by the end of one week after the conference via the homepage of AREC Raumberg-Gumpenstein.



**Impressum**

Medieninhaber und Herausgeber:  
HBLFA Raumberg-Gumpenstein  
Landwirtschaft  
Raumberg 38, A-8952 Irdning-Donnersbachtal

Alle Rechte vorbehalten  
A-8952 Irdning-Donnersbachtal 2021

[raumberg-gumpenstein.at](http://raumberg-gumpenstein.at)