



**Flury-Saal**

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**Zoom Room**

<https://wsl.zoom.us/j/6527427760>

*Wednesday, February 22nd, 2022*

*2:00 pm*

*(CET, Zurich Time)*

**Birmensdorfer Tree-Ring Lecture**

**Stefan Klesse**

WSL

Birmensdorf, Switzerland

## **Using long time-series information to better interpret extreme event impacts on tree growth**

In a recent paper we showed that tree-ring derived drought legacy effects as previously published are nothing extra-ordinary and cannot be distinguished from ordinary biological memory. We could reproduce drought legacy effects knowing three key variables, i) auto-correlation of the growth time series, ii) climate-growth cross-correlation, iii) the standard deviation of the growth time series.

In this talk, I will give an example of how our data simulation approach can help distinguishing between extra-ordinary and normal growth pattern in beech trees with and without heavy crown damage following the 2018 drought. I will further discuss some ideas about how the above-mentioned time-series characteristics can serve as a baseline to better contextualize other commonly used extreme event analyses.

Chaired by

**Paolo Cherubini**

## Birmensdorfer Tree-Ring Lectures Programme

Tree-Ring Lectures - Forthcoming: ... 2022 *Scientific talks and presentations given by WSL scientists and staff, typically a 1-hour monthly meeting*

Special Invited Tree-Ring Lectures - Organized ad hoc and ad libitum! *Invited guest lectures given by scientists, students, guests, visitors in the labs who are not present to give a talk during a regularly scheduled Tree-Ring Lecture*

Tree-Ring Spring's Event - Forthcoming: May 2023 *A springtime event, at Birmensdorf or surroundings*

Tree-Ring Summer Meeting - Forthcoming: August 2023 *A one- or half-a-day scientific meeting dealing in depth with one topic, finishing with a BBQ in the WSL gardens*

Tree-Ring Fall Excursion - Forthcoming: October 2023 *A one- or two-day scientific excursion of the whole tree-ring community with talks and presentations on research achievements or ongoing projects in the region*

Tree-Ring November Journal Club - Forthcoming: November 2023 *A half-a-day presentation of the most influential papers published by not-WSL staff in the different fields of tree-ring related sciences during the past year, chosen by selected WSL scientists and students*

Tree-Ring December's Forum - Forthcoming: December 2022 *A discussion among WSL scientists on hot and emerging issues in tree-ring science, moderated and including invited talks and a panel discussion or not, concluding into the traditional Dendro X-mas Party \*\*\**

### Audience

WSL Dendrosciences Group's scientific and technical staff, WSL tree-ring scientists, PhD students, Master students, WSL scientists, tree-ring interested scientists and students working in the Zurich area (e.g., ETHZ, PSI, UZH) and in Switzerland or European countries (although we don't believe that people from overseas will run, swim and fly to these meetings, of course, scientists from other parts of the world are warmly welcome too!).

### Chair

Each meeting will be chaired by a WSL scientist depending on the topic and willingness.

### Proposals for meetings....

.... are welcome!

### Language

English preferred.

### Scientific Committee

Dr. Paolo Cherubini, Dr. Patrick Fonti, Dr. Holger Gärtner, Dr. Kerstin Treydte, Dr. Georg von Arx

### Organisation

Dr. Paolo Cherubini, Dr. Georg von Arx