



WSL Birmensdorf

Flurysaal

Tuesday, April 23rd, 2019

4 pm

Special Invited Tree-Ring Lecture

Athanasios Koutavas

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College of Staten Island
& Graduate Center

City University of New York

U.S.A.

El Niño, Ice Ages and Climate Change

Human-caused climate variations are inevitably interwoven with natural ones. In order to achieve proper attribution and accurate climate prediction the two must be understood separately. One of the greatest sources of natural climate variability is the tropical Pacific Ocean and its El Niño–Southern Oscillation (ENSO) and Pacific Decadal Oscillation (PDO). We know very little about how this system evolved geologically and how it interacts with large scale or global climate on timescales of centuries and longer. In this talk I present reconstructions of ENSO and tropical Pacific climate during the Little Ice Age (1450-1850 AD) and the Big Ice Age (~21 ky BP), from geochemistry of foraminifera found in sediments of the Galápagos Islands. I show evidence that during both the Little and Big Ice Ages the tropical Pacific had changed toward a more El Niño-like mean state with greater ENSO activity. Implications for ocean-atmosphere dynamics are discussed.

Chair: Dr. Paolo Cherubini

Birmensdorfer Tree-Ring Lectures

Programme

Tree-Ring Lectures - Forthcoming: ... 2019 *Scientific talks and presentations given by WSL scientists and staff, typically a 2-hour monthly meeting*

Special Invited Tree-Ring Lectures - Forthcoming: 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 2019 *A springtime event, at Birmensdorf or surroundings*

Tree-Ring Summer Meeting - Forthcoming: September 2019 *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: Tuesday October 2019 *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 2019 *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 2019 *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