

Seminář katedry fyzické geografie a geoekologie, zimní semestr 2018/2019

Geografické kolokvium studentů postgraduálního studia (čtvrtky, 14:00 Věž)

4. 10. 2018

Vitalii Zaginaev: Development of exogenous geological processes in Kyrgyzstan

KFGG & Kyrgyz State committee for industry, energy and subsoil use & Kyrgyz National Academy of Science

There are many exogenous geological processes developed on the territory of Kyrgyzstan such as GLOFs, debris flows, landslides, rockfall, flooding by groundwater. Many of these processes threaten people living in the country. The main task is not only to study the nature of these processes but also to develop a remedy of defence and prepare a forecast for the future.

18. 10. 2018

April S. Dalton: A highly dynamic Laurentide Ice Sheet prior to the Last Glacial Maximum: key insights from the chronostratigraphic record

Geography Department, Durham University

The palaeo record offers important insight into the long-term interaction between the biosphere, cryosphere and atmosphere. Here, I examine the chronostratigraphic record of North America and constrain a highly reduced Laurentide Ice Sheet at ~45 ka. These data challenge the long-held assumption that North America was moderately glaciated during that time. Reduced continental ice at ~45 ka has implications for refining estimates of global mean sea level, understanding terrestrial ecosystem structure through the Pleistocene, and sheds light on the mechanism behind Heinrich Events.

1. 11. 2018

Talks of doctoral students

Róbert Kvak: High-resolution numerical weather prediction model: Are we able to forecast thunderstorms through the convective storm preconditions?

Convective storms are much more common across the Western Carpathians than across regions far away from the mountains. The COSMO numerical weather prediction model is used to simulate the eight case studies, initialized using reanalysis data, and to study how mountain ranges influence thunderstorm occurrence in their close proximity, and to identify the responsible processes. Is there any connection between convective environment parameters and thunderstorm occurrence over complex terrain?

Theodora Lendzioch: Using spectral trajectories and object-based classification for ascribing forest disturbance dynamics

We enhanced an approach by creating disturbance history maps derived from Landsat 27 years time series over the Šumava National Park, Czech Republic, based on two methods: 1) determination of spectral trajectories using LandTrendR algorithm and 2) an object-based classification (OBIA) of vegetation using multispectral data. These methods allowed creating a thematic layer of disturbance events from the long-term forest dynamic trends. The results were validated regarding ground truth data and thus compared to each other. The results demonstrated the strength and weakness of the two applied methods.

Vladimír Piskala: How the circulation has changed during the 20th century?

The Northern Hemisphere circulation has changed during the past century as many studies proved before. The long-term reanalyses (20th Century and ERA-20C) provide an opportunity to find out if these changes are also detectable in modes of low-frequency variability (i.e. teleconnections). Results can answer questions how the intensity and even the geographical position of modes have changed.

15. 11. 2018

Michal Belda: Integrated climate change assessment with climate classification

Department of Atmospheric Physics, MFF UK Prague

Climate classifications are a convenient tool for evaluation of climate model results. We use Köppen-Trewartha classification for the evaluation of historical and scenario climate model simulations from the CMIP5 and EURO-CORDEX project.

29.11. 2018

Lukasz Pawlik: Biomorphodynamics of forested hillslopes

University of Silesia, Faculty of Earth Sciences, Sosnowiec

Forest dynamics driven by natural ecosystems can result in an immediate and prolonged response in the geomorphic system. Several processes can be involved in it and contribute to the complex post-disturbance state of forested hillslopes. Biomorphodynamics, especially related to trees and tree roots, can have direct and indirect geomorphic meaning

6.12. 2018

Presentations of new doctoral projects of 1th-year PhD students