

STATE OF GEOMORPHOLOGICAL RESEARCH IN 2025



ČAG



INSTITUTE
OF GEOGRAPHY SLOVAK
ACADEMY OF SCIENCES

KATEDRA
FYZICKEJ GEOGRAFIE
A GEOINFORMATIKY

CONFERENCE PROGRAMME

Wednesday, 9th April 2025

12:00 - 13:30 - Registration

13:30 - 14:00 - Conference opening, Best Thesis Contest Award ceremony

14:00 - 15:00 - Keynote lectures

Jozef Minár

Physical geomorphometry in digital geomorphological mapping

Jan Hradecký, Tomáš Galia, Václav Škarpich

What we know about the hydromorphological effects of water transport? A case study of the Lower Elbe

15:00 - 15:30 - Coffee break

15:30 - 17:00 - Plenary Session I

Karol Augustowski

Rate of riverbanks erosion using various research methods

Rohit Sharma, Miloš Rusnák, Zulfequar Ahmad, Rahul Dev Garg

Optical bathymetry of wadable river channel using high-resolution and detailed UAV data

Tomáš Galia, Václav Škarpich, Leonidas Vardakas, Elias Dimitriou, Yiannis Panagopoulos, Vilém Spálovský

Fast-tracking channel change: Human-induced degradation and flow-driven morphodynamics in an intermittent river

Adriana Holušová

The high-magnitude 2024 flood as a driver of gravel bar reworking: sediment and vegetation changes in two contrasting river environments

Akhtar Zeb Khan, Anna Kidová

Hydro-geomorphic adjustment of braided-wandering river to trained conditions: insight from the Belá River, Slovakia

Peter Labaš, Anna Kidová, Hamid Afzali

Lateral and vertical evolution of the Belá River floodplain based on the Relative Elevation Model

17:00 - 17:30 - Coffee break

17:30 - Plenary meetings:

Plenary meeting of the Czech Association of Geomorphologists

Plenary meeting of the Association of Slovak Geomorphologists

19:00 - 20:30 - Welcome drink

Thursday, 10th April 2025

9:00 - 10:15 - Plenary Session II

Olimpiu Pop, Ivan Ružek

Tree-ring reconstruction of snow avalanches in Parang Mountains (Southern Carpathians, Romania)

Radek Tichavský, Olimpiu Pop, Ionela Georgiana Răchită, Barbora Koláčková, Michal Novák, Eliška Rozsivalová

Debris Flow Activity in the Southern Carpathians: Regional Chronology and Hydrometeorological Drivers

Jan Klimeš, Gianvito Scaringi, Marco Loche, Jan Jerman, Filip Hartvich, Jan Balek, Jan Blahůt, Ondřej Racek

Effects of soil temperature changes on slope stability

Filip Hartvich

Geomorphologist in the service of minister of transport

Michal Břežný

Role of caprock thickness on stability of mesa escarpments

10:15 - 10:45 - Coffee break

10:45 - 12:00 - Plenary Session III

Adam Łajczak, Roksana Zarychta

Relief of the Orava-Nowy Targ Basin, Western Carpathians – new data

Roksana Zarychta, Adam Łajczak

Reconstruction of the morphology and hydrography of the centre of Kraków (Poland) before the middle ages – new data

Petra Štěpančíková

Earthquakes and other geological events in the Bible and their interpretations

Lucie Kubalíková, Karel Kirchner, Piotr Migoń

Geoheritage values and threats related to sandstone crags of the Chřiby ridge (Moravian Carpathians, Czech Republic)

Václav Stacke, Václav Duffek, Markéta Kuberská, Gabriela Kostová, Klára Vočadlová, Tereza Poncová, Dalibor Kodým, František Váňa, Pavel Mentlík

How to improve teaching of (not only) geomorphology?

12:00 - 13:30 - Lunch break

13:30 - 14:45 - Plenary Session IV

Szabolcs Ákos Fábrián, Dárus Szabadkai, Bence Tombor, Beáta Farkas, Ákos Halmai, Richárd Balogh, Gábor Varga

Exploring the spatial distribution and morphometric parameters of periglacial crop marks utilising orthophotos and satellite imagery in northwestern Hungary

Beáta Farkas

Micro-scale frost weathering as an indicator of past permafrost? A comparative study

Alena Gessert, Zdenko Hochmuth

Denudation of karst relief based on limestone tablets experiment in the Slovak karst area

Michal Gallay, Jozef Šupinský, Michaela Nováková, Jozef Minár

Physical Geomorphometry in Cave Systems: A Case Study of Domica Cave, Slovakia

Kristýna Schuchová

Integration of Mapping Techniques: Laser Scanning and Leica Disto in Subterranean Mapping – A Case Study of the Stříbrný Důl in Horní Město

14:45 - 15:15 - Coffee break

15:15 - 16:30 - Plenary Session V

Sumit Das, Soumi Talukdar, Gianvito Scaringi, Satish J. Sangode, Paolo Tarolli

Control of river capture, lithology and climate in geomorphic evolution and modern erosion rates in Central Peninsular India

Simona Koreňová, Monika Šulc Michalková, Radek Bachan, Petr Münster, Adam Valík

Sediment connectivity assessment and soil erosion modelling: how to identify hot-spots and improve soil protection measures

Soumi Talukdar, Sumit Das

Factors controlling sediment yield in a anthropogenically altered Precambrian terrain

Wiktor Piech, Anna Hrynowiecka, Renata Stachowicz-Rybka, Katarzyna Cywa, Agnieszka Gruszczynska, Michał Słowiński, Daniel Okupny, Marek Krąpiec, Artur Ginter, Andrey Mazurkevich, Piotr Kittel

Factors influencing the intensification of gully erosion during the Little Ice Age in the Sertejka River Valley, Eastern Europe

Soheyl Moradi

Evaluating the immediate effects of floods on land use changes in Iran's Central Zagros: a focus on Sefid Kuh Protected Area

16:30 - 17:00 - Coffee break

17:00 - 18:00 - Poster Session

19:00 - Festive Dinner

Poster Session:

1. *Natálie Bedrunková, Jan Lenart*

The development of the northwestern part of the Hedvika Colliery Spoil Heap, Upper Silesian Coal Basin, Czechia

2. *Michał Bień, Karol Plesiński*

Geomorphological functions and hydraulic conditions of gravel spawning grounds of brown trouts, an example from Polish upland rivers

3. *Kacper Cedro, Karol Plesiński, Janusz Filipczyk, Dawid Kędzia*

Geomorphological functions of the block ramp designed in the Narew riverbed

4. *Sumit Das, Gianvito Scaringi*

Introducing Dynamic Threshold Weighting (DTW) method for landslide susceptibility mapping

5. *Dominika Faturová, Rudolf Brázdil, Monika Šulc Michalková, Jan Řehoř, Martin Caletka, Pavel Zahradníček*

Towards a comprehensive understanding of flash floods: hydrological insights complementing Brázdil et al. (2024)

6. *Soňa Hrnčířová, Václav Stacke, Václav Duffek*

Virtual Field Trips: How to Engage Students Who Can't Join the Excursion?

7. *Anna Chrobak-Žuffová, Ján Novotný, Daniel Michniak*

Expert assessment of geosites in SubTatra Region (N Slovakia)

8. *Jan Juráček*

Slope deformations on the Hořice Ridge (Czechia)

9. *Barbora Koláčková, Michal Břežný*

Recent activity of Patagonian landslides

10. *Maria Kotowska, Kacper Jancewicz, Piotr Migoń*

Geomorphological mapping of a sandstone rock city at Ostaš, Broumovská vrchovina, Czechia

11. *Marta Łapuszek, Karol Plesiński, Janusz Filipczyk, Kacper Cedro*
The influence of bridge structures on the hydraulic conditions of flood in the selected Carpathian rivers
12. *Ashraf MD, Miloš Rusnák, Ján Šašak, Ján Kaňuk*
Grain size fragmentation analysis via photosieving approach using UAV (LiDAR and orthophotos)
13. *Anna Mitura*
The use of DEM and derived models to detect landslides modifying drainage divide in the Polish Outer Carpathians
14. *Lucie Polášková, Radek Tichavský*
Dendrogeomorphoc evidence of subsidence in mining affected landscape
15. *Wioleta Porębna, Marek Kasprzak*
Drainage pattern of the NW Intra-Sudetic Trough – a geomorphometric study
16. *Roberta Prokešová, Ján Novotný*
From topographic indices to uplift rates: topographic metrics for morphometric dating applied in the Western Carpathians terrains
17. *Ghazaal Rastjoo, Jan Blahůt, Ondřej Racek, Xuan Xinh Nguyen, Artem Polezhaev, Marco Loche*
Assessing the Impact of Wildfires and High Temperature on Rock Properties on Diverse Lithologies in the Czech Republic
18. *Eliška Rozsivalová, Michal Břežný*
Reflection of tectonics in the characteristics of watershed and watercourses of the Hrubý Jeseník Mountains
19. *Marta Rudna, Marta Wojewódka-Przybył, Jacek Forysiak*
A record of environmental changes at the turn of the Pleistocene and Holocene in the remains of the Cladocera fauna deposited in the sediments of the Ługi and Żabieniec peatlands
20. *Ivan Ružek, Terézia Šidová, Karel Šilhán*
Dendrogeomorphological reconstruction of the landslide activity in the area of Vinohrady nad Váhom
21. *Marta Sadkiewicz, Marek Kasprzak*
Evidence of mining activities in the karst area of the Kaczawskie Mts: changes in the topography and karst voids discoveries
22. *Imrich Sládek, Alena Gessert*
Geomorphological rock value determined using the Schmidt hammer test method on the example of Zádielska dolina valley (Slovak Karst Mts.)
23. *Matěj Slíva, Tomáš Pánek, Gernot Seier*
Glacier retreat and recent landslides in Patagonia: A Post-Little Ice Age inventory
24. *Maksymilian Solarski*
The impact of mining activities on changes in the terrain in the Bytomka catchment area (Southern Poland)
25. *Orsolya Somogyvári, Gábor Varga, Szabolcs Ákos Fábrián*
Effects of the forest management on debris dams and large woody debris in a small catchment: a case study for the Hidas-völgy, Mecsek Hills (Hungary)
26. *Václav Škarpich, Tomáš Galia, Ondřej Vala*
Channel and fan-delta modification caused by human interventions of the Kerinitis River in Peloponnese, Greece
27. *Matej Vojtek, Jana Vojteková, Sabína Kostolná*
Fluvial flood hazard modeling with the use of Height Above the Nearest Drainage model and GIS