

# 60th Czech-Slovak Graph Theory Conference

Hluboká nad Vltavou, May 26-30, 2025

# Monday 26

#### 12:30 Lunch

## 14:30 Opening

**14:35 Jan Kratochvíl:** Distance-constrained labeling and Hamiltonicity of dense graphs (invited lecture)

**15:30 Michal Dvořák:** Complexity of target set selection in simple geometric networks

#### 15:55 Coffeebreak

**16:20 Zdeněk Ryjáček:** A closure concept for 2-Hamiltonicity in clawfree graphs

**16:45 Petr Vrána:** Every 4-connected {claw,hourglass}-free graph is 2-Hamiltonian

17:10 Ondřej Suchý: On kernels for d-path vertex cover

17:35 Pavol Hell: Homomorphisms of signed graphs

## 18:30 Dinner, welcome party

## **Tuesday 27**

- **9:00 Jozef Širáň:** Graphs, groups and surfaces coming together: Regular embeddings of complete multigraphs (invited lecture)
- **9:55 Hoi Ping Luk:** Classification of edge-to-edge monohedral tilings of the sphere

#### 10:20 Coffeebreak

- **10:50 Edita Máčajová:** Short cycle covers and the colouring defect of a cubic graph
- **11:15 Martin Škoviera:** Are there any permutation snarks of order 6 (mod 8)?
- **11:40 Roman Nedela:** Berge's conjecture for generalised cycle permutation graphs

#### 12:30 Lunch

- **14:30 Igor Fabrici:** Colorings of plane graphs with unique colors (invited lecture)
- 15:25 Diana Švecová: Improper vertex coloring

#### 15:50 Coffeebreak

- 16:20 Alfréd Onderko: Homogeneous coloring
- **16:45 František Kardoš:** An algorithmic Vizing's theorem: toward efficient edge-coloring sampling with an optimal number of colors
- 17:10 Matúš Matok: (Mostly) total colouring of (sub)cubic Halin graphs
- **17:35** Jan Jedelský: First-order transduction hierarchy among sparse graph classes

#### 18:30 Dinner

20:00 Quiz

## Wednesday 28

- **9:00 Geňa Hahn:** Automorphisms of the lexicographic product of structures (invited lecture)
- 9:55 Štefan Gyürki: Symmetric directed strongly regular graphs

#### 10:20 Coffeebreak

- **10:50 Soňa Pavlíková:** Signability and spectral indices of Moore-Penrose inverses of graphs
- **11:15 Pavol Jánoš:** A comparison of two group-based graph constructions
- 11:40 Marek Filakovský: Hom complexes and homotopy of graphs

#### 12:30 Lunch

### 14:30 Excursion, trip

Excursion to Castle Hluboká, walk in the castle garden or Trip along the Vltava river

#### 18:30 **Dinner**

# **Thursday 29**

- **9:00** Mykhaylo Tyomkyn: Weak saturation in graphs and hypergraphs (invited lecture)
- 9:55 Gaurav Kucheriya: Turán-type problems and the abstract chromatic number

#### 10:20 Coffeebreak

- **10:50** Yifan Zhang: Covering of a complete graphs by K<sub>3</sub>, K<sub>4</sub> and K<sub>5</sub>
- 11:15 Dalibor Fronček: G-designs for some small graphs
- 11:40 Petr Kovář: Difference distance magic oriented graphs

#### 12:30 Lunch

- **14:30** Jozef Rajník: Cyclic edge-connectivity of graphs (invited lecture)
- **15:25** Roman Soták: Degree-balanced decompositions of cubic graphs

#### 15:50 Coffeebreak

- 16:20 Jakub Balabán: Matroid tree-depth
- **16:45** Karolína Hylasová: Hypertree shrinking avoiding low degree vertices
- **17:10** Jan Pokorný: Practical approach to 2-Euclidean preferences
- **17:35 Šimon Schierreich:** Equitable connected partition and structural parameters revisited: N-fold beats Lenstra

## 18:30 Dinner, Farewell party

# Friday 30

- **9:00** Vašek Chvátal: Discrete mathematical charms of Paul Erdős (invited lecture)
- 9:55 Martin Knor: Subpath number of the graph

#### 10:20 Coffeebreak

- 10:50 Jan Sedlák: Pass the buck and resistance distance
- 11:15 Martin Kopřiva: Math hidden behind the Chessboard
- 11:40 Tomáš Kaiser: Critical subgraphs of shift graphs

#### 12:15 Lunch