Berlin-Poznań-Hamburg-Warsaw Seminar
24-25 September 2021, Będlewo, Poland
Program

Thursday		
19:00-20:00	Dinner	
Friday		
8:00-9:00	Breakfast	
9:30-12:30	Random walk in nearby forest	
13:30-14:30	Lunch	
14:30-16:00	Session 1 (Warsaw)	
14:30-14:55	Karolina Okrasa	Balanced separators in hereditary graph classes
15:00-15:25	Marta Piecyk	Faster 3-coloring of small-diameter graphs
15:30-16:00	Michał Dębski	Conflict-free chromatic index of graphs
16:00-16:30	Coffee	
16:30-18:30	Session 2 (Hamburg, mostly)	
16:30-16:55	Pranshu Gupta	Ramsey simplicity of random graphs
17:00-17:25	Olaf Parczyk	The square of a Hamilton cycle in randomly perturbed graphs
17:30-17:55	Yannick Mogge	Connector-Breaker Games on random boards
18:00-18:25	Simón Piga	Codegree threshold for tight euler tours and cycles decompositions
19:00	Banquet	
Saturday		
8:00-9:00	Breakfast	
10:00-11:00	Session 3 (Berlin)	
10:00-10:25	David Fabian	The running time of tree bootstrap percolation*
10:30-11:00	Michael Anastos	Longest Cycles in Sparse Random Graphs and Where to Find Them
11:00-11:30	Coffee	
11:30-13:00	Session 4 (Poznań)	
11:30-11:55	Grzegorz Adamski	Online Ramsey numbers and the golden ratio*
12:00-12:25	Sylwia Antoniuk	Properly colored Hamilton cycles in Dirac-type hypergraphs
12:30-12:55	Andrzej Ruciński	Subgraphs games in semi-random (hyper)graphs processes
13:00-14:00	Lunch	

Abstracts

David Fabian, *The running time of tree bootstrap percolation*

The *bootstrap process* of a graph H on a graph G is the sequence $(G_i)_{i \geqslant 0}$, where $G_0 := G$ and G_i is obtained from G_{i-1} by adding every edge which completes a copy of H. We investigate the *maximum running time* $M_H(n)$, which is the smallest integer satisfying $G_{i+1} = G_i$ for all $i \geqslant M_H(n)$ and every graph G on n vertices, and show that when H is a tree there exists a constant c_H such that $M_H(n) \leqslant c_H$.

This is joint work with Patrick Morris and Tibor Szabó.

Grzegorz Adamski, *Online Ramsey numbers and the golden ratio*

Consider a game played by 2 players, Builder and Painter. In each turn, Builder chooses some edge from infinite clique $K_{\mathbb{N}}$. Then Painter chooses if this edge will be red or blue. The game ends when there is a copy of graph from a set of "forbidden" 2-coloured graphs F. Builder's goal is to end the game as fast as possible and Painter's goal is the opposite. The online Ramsey number $\tilde{r}(F)$ is the number of moves in the game where both players play optimally.

I will present results for the case where F consists of red cycle C_k and blue path P_n where $k = 3, 4$.

This is joint work with Małgorzata Bednarska-Bzdęga.