Yaobin Chen

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https://chernyewpim.github.io/YaobinChen.github.io/

Education

2017 – 2021 **B.S, University of Science and Technology of China** Mathematics, GPA3.74/4.3. Thesis title: *Some research about extremal combinatorial function*. Supervisor:Jie Ma

2021 –now **PH.D Student, Shanghai Center for Mathematics Science, Fudan University** Graph Theory. Supervisor: Hehui Wu

Research Publications

Submitted Paper

1. Bradshaw, P., Chen, Y., Ma, H., Mohar, B., & Wu, H. (2022). List-avoiding orientations. *arXiv preprint arXiv:2209.09107*.
2. Chen, Y., Mohar, B., & Wu, H. (2021). Proper orientations and proper chromatic number. *arXiv preprint arXiv:2110.07005*.

- The first paper studies the proper chromatic number $\vec{\chi}(G)$ of a graph G which is the minimum k such that there exists an orientation of the edges of G with all vertex-outdegrees at most k and such that for any adjacent vertices, the outdegrees are different. We proved that $\vec{\chi}(G)$ is bounded for any planar graph.
- The second paper studies the F-avoiding orientation of a graph G which is an orientation in which $\deg^+(v) \notin F(v)$ for each vertex v. We prove that if for any vertex $|F(v)| \leq \frac{\deg(v)}{3}$, there exist such F-avoiding orientation

Core Courses

Graph Theory, Combinatorics, Extremal Graph Theory, Algebraic Graph Theory. All are grade A

Awards

2018 **Excellent Student Scholarship Second Prize**. University of Science and Technology of China

2020 **Excellent Student Scholarship First Prize** . University of Science and Technology of China

Interests

Extremal Graph Theory, Chromatic number and Turán Number.