

Xin Zhang

Personal Profile

Place and Date of Birth: China | 12 September 1986
Affiliation: School of Mathematics and Statistics, Xidian University
Academic title: Associated Professor
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Education

September 2007-June 2012

Doctor of Science in Mathematics - Shandong University
Advisor: Prof. Guizhen Liu

September 2003-June 2007

Bachelor of Science in Mathematics - Shandong University

Work Experience

Aug 2019-Present

Discrete Mathematics Group (DIMAG) - Institute for Basic Science (IBS, Korea)
Visiting Scholar

July 2015-Present

School of Mathematics and Statistics - Xidian University
Supervisor of Master's Candidates

July 2014-Present

School of Mathematics and Statistics - Xidian University
Associate Professor

July 2012-Jun 2014

School of Mathematics and Statistics - Xidian University
Lecture

Research Interests

05C10 Planar graphs; geometric and topological aspects of graph theory
05C15 Coloring of graphs and hypergraphs
05C22 Signed and weighted graphs
05C38 Paths and cycles
05C70 Factorization, matching, partitioning, covering and packing
05C75 Structural characterization of families of graphs
05C82 Small world graphs, complex networks

Academic Affiliations

July 2015-Present

Commissary of CSIAM Activity Group on Graph Theory and Combinatorics with Applications

November 2017-Present

Member of the board of directors of Special Interest Group in Graph Theory & Combinatorics
form the Operations Research Society of China

Academic Projects

January 2019-December 2022

On the equitable coloring of graphs and its relative problems
National Natural Science Foundation of China (No. 11871055), PI

January 2014-December 2016

The structures and colorings of some classes of graphs
National Natural Science Foundation of China (No. 11301410), PI

Selected Publications

- A structure of 1-planar graph and its applications to coloring problems, *Graphs and Combinatorics*, 35(3) (2019) 677-688 (with Bei Niu, Jiguo Yu)
- Upper bound on the sum of powers of the degrees of graphs with few crossings per edge, *Applied Mathematics and Computation*, 350 (2019) 163-169
- Equitable coloring and equitable choosability of graphs with small maximum average degree, *Discussiones Mathematicae Graph Theory*, 38 (2018) 829-839 (with Aijun Dong)
- Equitable coloring of three classes of 1-planar graphs, *Acta Mathematicae Applicatae Sinica, English Series*, 34(2) (2018) 362-372 (with Huijuan Wang, Lan Xu)
- Light paths and edges in families of outer-1-planar graphs, *Information Processing Letters*, 136 (2018) 83-89 (with Jingfen Lan, Bi Li, Qiang Zhu)
- Total coloring of outer-1-planar graphs with near-independent crossings, *Journal of Combinatorial Optimization*, 34(3) (2017) 661-675
- On the equitable edge-coloring of 1-planar graphs and planar graphs, *Graphs and Combinatorics*, 33 (2017) 945-953 (with Dai-Qiang Hu, Jian-Liang Wu, Donglei Yang)
- Total coloring of planar graphs without adjacent short cycles, *Journal of Combinatorial Optimization*, 33(1) (2017) 265-274 (with Hongwei Gao, Bin Liu, Huijuan Wang, Lidong Wu, Weili Wu)
- Equitable list point arboricity of graphs, *Filomat*, 30(2) (2016) 373-378
- Equitable vertex arboricity of subcubic graphs, *Discrete Mathematics*, 339 (2016) 1724-1726
- The edge chromatic number of outer-1-planar graphs, *Discrete Mathematics*, 339 (2016) 1393-1399
- List edge and list total coloring of planar graphs with maximum degree 8, *Journal of Combinatorial Optimization*, 32(1) (2016) 188-197 (with Hongwei Gao, Yan Gu, Bin Liu, Huijuan Wang, Weili Wu)
- A note on the minimum number of choosability of planar graphs, *Journal of Combinatorial Optimization*, 31(3) (2016) 1013-1022 (with Huijuan Wang, Lidong Wu)
- On total coloring of 1-planar graphs, *Journal of Combinatorial Optimization*, 30(1) (2015) 160-173 (with Jianfeng Hou, Guizhen Liu)
- The r -acyclic chromatic number of planar graphs, *Journal of Combinatorial Optimization*, 29(4) (2015) 713-722 (with Guanghui Wang, Guiying Yan, Jiguo Yu)
- Equitable colorings of Cartesian products with balanced complete multipartite graphs, *Discrete Applied Mathematics*, 180 (2015) 200-203 (with Wei Wang, Zhidan Yan)
- Equitable vertex arboricity of planar graphs, *Taiwanese Journal of Mathematics*, 19(1) (2015) 123-131

- On r -equitable chromatic threshold of Kronecker products of complete graphs, *Discrete Applied Mathematics*, 175 (2014) 129-134 (with Wei Wang, Zhidan Yan)
- Drawing complete multipartite graphs on the plane with restrictions on crossings, *Acta Mathematica Sinica, English Series*, 30(12) (2014) 2045-2053
- A conjecture on equitable vertex arboricity of graphs, *Filomat*, 28(1) (2014) 217-219
- Equitable vertex arboricity of graphs, *Discrete Mathematics*, 313 (2013) 2696-2701 (with Hailun Li, Jian-Liang Wu)
- List total coloring of pseudo-outerplanar graphs, *Discrete Mathematics*, 313 (2013) 2297-2306
- The structure of plane graphs with independent crossings and its applications to coloring problems, *Central European Journal of Mathematics*, 11(2) (2013) 308-321 (with Guizhen Liu)
- On edge colorings of 1-planar graphs without adjacent triangles, *Information Processing Letters*, 112 (2012) 138-142 (with Guizhen Liu)
- k -forested choosability of planar graphs and of sparse graphs, *Discrete Mathematics*, 312 (2012) 999-1005 (with Guizhen Liu, Jian-Liang Wu)
- On r -acyclic edge colorings of planar graphs, *Discrete Applied Mathematics*, 160 (2012) 2048-2053 (with Jinbo Li, Guizhen Liu, Guanghui Wang, Yong Yu)
- Edge covering pseudo-outerplanar graphs with forests, *Discrete Mathematics*, 312 (2012) 2788-2799 (with Guizhen Liu, Jian-Liang Wu)
- On edge colorings of 1-planar graphs, *Information Processing Letters*, 111 (2011) 124-128 (with Jian-Liang Wu)
- On equitable and equitable list colorings of series-parallel graphs, *Discrete Mathematics*, 311 (2011) 800-803 (with Jian-Liang Wu)
- A note on relaxed equitable coloring of graphs, *Information Processing Letters*, 111 (2011) 1062-1066 (with Hao Fan, H. A. Kierstead, Guizhen Liu, Theodore Molla, Jian-Liang Wu)
- New upper bounds for the heights of some light subgraphs in 1-planar graphs with high minimum degree, *Discrete Mathematics and Theoretical Computer Science*, 13(3) (2011) 9-16 (with Jian-Liang Wu, Guizhen Liu)
- Vertex-disjoint triangles in $K_{1,t}$ -free graphs with minimum degree at least t , *Discrete Mathematics*, 310 (2010) 2499-2503 (with Na Li, Jian-Liang Wu, Jin Yan)

Additional Informations

# Papers	53 (On Graph Theory, in English)	# Coauthors	43
# Citations	386	h-index	11
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My Google Scholar Page <https://scholar.google.com/citations?hl=zh-CN&user=9x28SYUAAAAJ>
 My Scopus Page <http://www.scopus.com/authid/detail.uri?authorId=55715379800>

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