

DONG YE

Contact Information

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Education

Ph.D. in Mathematics, West Virginia University, 2008–2012.
M.S. in Operations Research, Lanzhou University, 2002–2005.
B.S. in Mathematics, Lanzhou University, 1998–2002.

Employment

Professor, Middle Tennessee State University	August 2022-present.
Associate Professor, Middle Tennessee State University	August 2012- July 2022.
Assistant Professor, Middle Tennessee State University	August 2012- July 2018.
Teaching Assistant, West Virginia University	August 2008-May 2012.
Lecturer, Lanzhou University	July 2005-July 2008.

Temporary Positions

Research Scholar, Vanderbilt University	January –May 2020.
Research Associate, Texas A&M University	June -August 2014.
Research Fellow, University of Victoria	October-November 2006.

Research Interests

Discrete Mathematics, Algorithm and Optimization

Publications

- 48 Naidan Ji and Dong Ye, The Clique Number of Graphs Covered by Long Cycles, *SIAM Journal on Discrete Mathematics* 37 (2) (2023) 917–924.
- 47 N. Tratnik and Dong Ye, Resoance Graphs on Perfect Matchings of Graphs on Surfaces, *Graphs and Combinatorics* 39 (4) (2023) 68: 15pp.

- 46 Wenzhong Liu, Mark N. Ellingham and Dong Ye, Minimal Quadrangulations of Surfaces, *Journal of Combinatorial Theory Ser. B* **157** (2022) 235–262.
- 45 Runrun Liu, Martin Rolek, Chris Stephens, Dong Ye and Gexin Yu, Connectivity for Kite-linked Graphs, *SIAM Journal on Discrete Mathematics* **35** (1) (2021) 431–446.
- 44 Mark Ellingham, Songling Shan, Dong Ye and Xiaoya Zha, Toughness and Spanning Trees in K_4 -minor-free Graphs, *Journal of Graph Theory* **96** (3) (2021) 379–402.
- 43 Ervin Győri, Michael D. Plummer, Dong Ye and Xiaoya Zha, Cycle Traversability for Claw-free Graphs and Polyhedral Maps, *Combinatorica* **40** (3) (2020) 405–433.
- 42 Yezhou Wu and Dong Ye, Minimum T -joins and Signed-circuit Covering, *SIAM Journal on Discrete Mathematics* **34** (2) (2020) 1192–1204.
- 41 Li Zhang, You Lu, Rong Luo, Dong Ye and Shenggui Zhang, Edge Coloring of Signed Graphs, *Discrete Applied Mathematics* **282** (2020) 234–242.
- 40 Michael D. Plummer, Dong Ye and Xiaoya Zha, Dominating Maximal Outerplane Graphs and Hamiltonian Plane Triangulations, *Discrete Applied Mathematics* **282** (2020) 162–167.
- 39 B. Chen, M. Ellingham, N. Hartsfield, S. Lawrencenko, W. Liu, H. Yang, Dong Ye and X. Zha, Quadrangular Embeddings of Complete Graphs and the Even Map Color Theorem, *Journal of Combinatorial Theory Ser. B*, **139** (2019) 1–26.
- 38 Shaohui Zhai, Erling Wei, Jinghua He and Dong Ye, Homeomorphically Irreducible Spanning Trees in Hexangulations of Surfaces, *Discrete Mathematics*, **342** (2019) 2893–2899.
- 37 Jinghua He, Erling Wei, Dong Ye and Shaohui Zhai, On Perfect Matchings in Matching-Covered Graphs, *Journal of Graph Theory*, **90** (4) (2019) 535–546.
- 36 Qiuli Li, Wei-Chee Shiu, Pai-Kiu Sun and Dong Ye, On the Anti-Kekulé Problem of Cubic Graphs, *The Art of Discrete & Applied Mathematics*, **2** (2019) P1.05: 1–11.
- 35 Yujun Yang and Dong Ye, Inverses of Bipartite Graphs, *Combinatorica*, **38** (5) (2018) 1251–1263.
- 34 Yezhou Wu and Dong Ye, Circuit Covers of Cubic Signed Graphs, *Journal of Graph Theory*, **89** (1) (2018) 40–54.
- 33 Dong Ye, On Maximum Matchings in Regular Graphs, *Discrete Mathematics*, **341** (5) (2018) 1195–1198.
- 32 Liying Kang, Weihua Lu, Yezhou Wu, Dong Ye and Cun-Quan Zhang, Circuit Decompositions and Shortest Circuit Coverings of Hypergraphs, *Graphs and Combinatorics*, **34** (2) (2018) 365–372.
- 31 Shaohui Zhai, Dalal Alrowaili and Dong Ye, Clar Structures vs Fries Structures in Hexagonal Systems, *Applied Mathematics and Computation*, **329** (2018), 384–394.
- 30 Yezhou Wu, Yujun Yang and Dong Ye, A note on Median Eigenvalues of Bipartite Graphs, *Communications in Mathematical and in Computer Chemistry (MATCH)*, **80** (3) (2018), 853–862.
- 29 Michael D. Plummer, Dong Ye and Xiaoya Zha, Connectivity and W_v -Paths in Polyhedral Maps on Surfaces, *Discrete & Computational Geometry*, **58** (1) (2017) 217–231.
- 28 Xiaofeng Wang, Rui Xu and Dong Ye, Cycle Double Covers and Long Circuits of Graphs, *Journal of Combinatorics*, **8** (2) (2017) 341–347.
- 27 Tomislav Došlić, Niko Tratnik, Dong Ye and Petra Žigert Pleteršek, On 2-Cores of Resonance Graphs of Fullerenes, *Communications in Mathematical and in Computer Chemistry (MATCH)*, **77** (3) (2017) 729–736.

- 26 Dong Ye, Yujun Yang, B. Mandal and Douglas J. Klein, Graph Invertibility and Median Eigenvalues, *Linear Algebra and its Applications*, 513 (2017) 304–323.
- 25 Yezhou Wu, Dong Ye and Cun-Quan Zhang, Uniquely Forced Perfect Matchings and Uniquely 3-Edge-Coloring, *Discrete Applied Mathematics*, 215 (2016) 203–207.
- 24 Kenta Ozeki and Dong Ye, Decomposing Plane Cubic Graphs, *European Journal of Combinatorics*, 52 (2016) 40–46.
- 23 Michael D. Plummer, Dong Ye and Xiaoya Zha, Dominating Plane Triangulations, *Discrete Applied Mathematics*, 211 (2016) 175–182.
- 22 R.E.L. Aldred, Qiuli Li, Michael D. Plummer, Dong Ye and Heping Zhang, Matching Extension in Toroidal Quadrangulations II: the 3-extendable case, *Australasian Journal of Combinatorics*, 63 (2) (2015) 268–296.
- 21 Douglas J. Klein, Yujun Yang and Dong Ye, HOMO-LUMO Gaps for Sub-graphenic and Sub-buckytubic Species, *Proceedings of the Royal Society A*, 471 (2180) (2015) 20150138.
- 20 Yezhou Wu, Dong Ye, Wenan Zang and Cun-Quan Zhang, Nowhere-zero 3-Flows in Signed Graphs, *SIAM Journal on Discrete Mathematics*, 28 (3) (2014) 1628–1637.
- 19 Dong Ye and Heping Zhang, Face-width of Pfaffian Braces and Polyhex Graphs on Surfaces, *Electronic Journal of Combinatorics*, 24 (4) (2014) P4.37: 1–19.
- 18 Jessica A. Carr, Xiaofeng Wang and Dong Ye, Packing Resonant Hexagons in Fullerenes, *Discrete Optimization*, 13 (2014) 49–54.
- 17 Yezhou Wu, Rong Luo, Dong Ye and Cun-Quan Zhang, A note on an Extremal Problem for Group-connectivity, *European Journal of Combinatorics*, 40 (2014) 137–141.
- 16 Erling Wei, Wenliang Tang and Dong Ye, Nowhere-zero 15-Flows in 3-Edge-connected Bi-directed Graphs, *ACTA Mathematicae Sinica*, 30 (4) (2014) 646–660.
- 15 Dong Ye, On the Anti-Kekulé Number and Odd Cycle Transversal of Regular Graphs, *Discrete Applied Mathematics*, 161 (13/14) (2013) 2196–2199.
- 14 Zhengke Miao, Dong Ye and Cun-Quan Zhang, Circuit Extension and Circuit Double Cover of Graphs, *Discrete Mathematics*, 313 (20) (2013) 2055–2060.
- 13 Dong Ye, Hamilton Cycles in Cubic Polyhex Graphs on the Klein Bottle, *Ars Combinatoria*, 112 (2013) 205–213.
- 12 Dong Ye and Cun-Quan Zhang, Cycle double covers and semi-Kotzig frame, *European Journal of Combinatorics*, 33 (4) (2012) 624–631.
- 11 Qin Yang, Dong Ye, Heping Zhang and Yuqin Lin, On the anti-Kekulé number of fullerenes, *Communications in Mathematical and in Computer Chemistry (MATCH)*, 67 (2) (2012) 281–288.
- 10 Heping Zhang, Dong Ye and Wei-Chee Shiu, Forcing matching numbers of fullerene graphs, *Discrete Applied Mathematics*, 158 (5) (2010) 573–582.
- 9 Heping Zhang, Dong Ye and Yunrui Liu, A combination of Clar number and Kekulé count as an indicator of relative stability of fullerene isomers of C_{60} , *Journal of Mathematical Chemistry*, 48 (3) (2010) 733–740.
- 8 Dong Ye, Zhongbin Qi and Heping Zhang, On k -resonant fullerene graphs, *SIAM Journal on Discrete Mathematics*, 23 (2) (2009) 1023–1044.

- 7 Dong Ye and Heping Zhang, Extremal fullerene graphs with the maximum Clar number, *Discrete Applied Mathematics*, 157 (14) (2009) 3152-3173.
- 6 Dong Ye, and Heping Zhang, 2-extendability of toroidal polyhexes and Klein-bottle polyhexes, *Discrete Applied Mathematics*, 157 (2) (2009) 292-299.
- 5 Zhongbin Qi, Dong Ye and Heping Zhang, The relation between cyclic-edge-connectivity and cyclic connectivity of 3-regular connected graphs, *Journal of Shangdong University (Natural Science)*, 44 (12) (2009) 22-24.
- 4 Heping Zhang and Dong Ye, k -resonant toroidal polyhexes, *Journal of Mathematical Chemistry*, 44 (1) (2008) 270-285.
- 3 Hongwei Wang, Dong Ye and Heping Zhang*, The forcing number of toroidal polyhexes, *Journal of Mathematical Chemistry*, 43 (2) (2008) 457-475.
- 2 Jing Huang and Dong Ye, Sharp bounds for the oriented diameters of interval graphs and 2-connected proper interval graphs, *Lecture Notes in Computer Science*, 4489 (2007) 353-361.
- 1 Heping Zhang and Dong Ye, An upper bound for the Clar number of fullerene graphs, *Journal of Mathematical Chemistry*, 41 (2) (2007) 123-133.

Editorial Positions

Managing Editor: *Theory and Applications of Graphs*, 2020–

Editor of: *International Journal of Mathematics and Statistics*, 2014–

Theory and Applications of Graphs, 2017–2020.

Journal of Combinatorics, Information & System Sciences, 2019–

Funding

PI of NSF Grant (DMS-2301339) (2023-2024): the 32nd Cumberland Conference on Combinatorics, Graph Theory and Computing, \$19,906.00

PI of Simons Foundation Grant (# 359516) (2015-2020): Flow, Coloring and Cycle Covering of Signed Graphs, \$35,000.00

PI of NSF Grant (DMS-1519577) (2015-2016): International Conference on Graph Theory and Applications, \$12,000.00

MTSU NIA Grant, 2019.

MTSU Faculty Development Grant (2017), \$492.00

PI of MTSU FRCAC Grant (2014-2015): Packing resonant hexagons in fullerenes, \$ 7,835.81

MTSU VPR Funding Grant (2014), \$2,500.00

Foreign PI of a bilateral grant (BI-US/22-24-158) from Slovenian Research Agency (2022-2024): Structural properties of resonance graphs and related concepts, (PI: Niko Trantnik)

Foreign PI of a bilateral grant from Slovenian Research Agency (2018-2020): Resonance Graphs of Fullerenes, (PI: Petra Žigert Pleteršek)