Lale Özkahya

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POSITIONS		
	Dept. of Computer Engineering at Hacettepe University	
	Associate Professor	2014–
	Dept. of Mathematics at Hacettepe University	
	Expert	2012-2014
	Dept. of Mathematics at Işık University	
	Postdoctoral researcher	Jan.-May 2012
	Dept. of Mathematics at Iowa State University	
	Postdoctoral researcher	Aug. 2011- May 2012
	Institute of Pure and Applied Mathematics (IPAM)	
	Combinatorics: Methods and App. in Math. and Comp. Sci. Program	
	Long-term sponsored fellow	Sep.-Dec. 2009
	Dept. of Mathematics at University of Illinois	
	Graduate researcher	2004 - 2009
	Dept. of Aerospace engineering at University of Illinois	
	Graduate researcher	2001 - 2003

EDUCATION		
	Ph.D. Mathematics, University of Illinois, Advisor: Zoltán Füredi	2010
	M.S. Aerospace engineering, (Computational Science and Engineering Program), University of Illinois, Advisor: Philippe Geubelle	2003
	B.S. Mechanical engineering, Boğaziçi (Bosphorus) University	1999

RESEARCH INTERESTS	
	Social network analysis, extremal graph theory

AWARDS& HONORS		
	Science Academy Young Scientist Award (BAGEP, Mathematics)	2018
	Invited Participant at Geometric and Enumerative Combinatorics at IMA	2014
	Invited Participant at Hypergraph Turan problem Workshop at AIM	2011

JOURNALS

[1] L. Özkahya, Y. Person: "Minimum Rainbow H-decompositions of graphs", *European Journal of Combinatorics* **71** (2018), 111-124.

[2] Z. Füredi, L. Özkahya: "On 3-uniform hypergraphs without a cycle of a given length", *Discrete Applied Mathematics* **216** (3) (2017), 582–588.

[3] L. Özkahya, B. Stanton: "On a covering problem in the hypercube", *Graphs and Combinatorics* **31**(1) (2015), 235–242.

[4] L. Özkahya, M. Young: "Anti-Ramsey number of matchings in hypergraphs", *Discrete Mathematics* **313**(20) (2013), 2359–2364 .

[5] M. Axenovich, L. Özkahya: "On homometric sets in graphs", *Australas. J. Combin.* **55** (2013), 175–187.

[6] Z. L. Nagy, L. Özkahya, B. Patkós, M. Vizer: "On the ratio of maximum and minimum degree in maximal intersecting families", *Discrete Mathematics* **313** (2013), 207–211.

[7] L. Özkahya, Y. Person: "Minimum H-decompositions of graphs: edge-critical case", *Journal of Combinatorial Theory, Series B*, **102** (2012), 715–725.

[8] Z. Füredi, L. Özkahya: "Unavoidable subhypergraphs: a-clusters", *Journal of Combinatorial Theory, Series A* **118** (2011), 2246–2256.

[9] Z. Füredi, L. Özkahya: "On even-cycle-free subgraphs of the hypercube", *Journal of Combinatorial Theory, Series A* **118** (2011), 1816–1819.

[10] J. Choi, L. Özkahya, D. West: "Degree-splittability of caterpillars and regular multigraphs", *Congressus Numerantium* **202** (2010), 137–148.

[11] A. Kostochka, L. Özkahya and D. Woodall: "A Brooks-type bound for squares of K_4-minor-free graphs", *Discrete Mathematics* **309** (2009), 6572–6584.

[12] Z. Füredi, L. Özkahya: "On 14-cycle-free subgraphs of the hypercube", *Combinatorics, Probability and Computing* **18** (2009), 725–729.

CONFERENCE PUBLICATIONS

[13] Ali Baran Taşdemir, Barkın Atasay, Lale Özkahya. Classification of Complex Networks Using Structural Analysis of Random Graph Models. Signal Processing and Communications Applications Conference (**SIU2020**), 4 pages, October 2020.

[14] Taha Sevim, Muhammet Selçuk Güvel, Lale Özkahya. A Fast Counting Method for 6-Motifs with Low Connectivity Mathematical Aspects of Computer and Information Sciences (**MACIS 2019**), 8 pages, November 2019.

TEACHING EXPERIENCE

Undergraduate Teaching

- BBM205 Discrete Mathematics — 2015-2021
- BBM402 Theory of Computation — 2018-2020
- BBM 401 Automata Theory and Formal Languages — 2016, 2017
- BBM403 Combinatorics and Graph Theory — 2015, 2019

Graduate Teaching

- CMP741 Advanced Analysis of Algorithms — 2021
- CMP694 Graph Theory — 2015-2020

STUDENTS MENTORED

M.S. Students

- Ali Baran Taşdemir (CS)
- Alaittin Kırtışoğlu (Math)

PROJECTS

TUBITAK-1002, Maksimum Klik Probleminin Çözümü için Yüksek Dereceli Çizge Motiflerinin Katkısıyla Nokta Sınıflandırılması.
Principal Investigator — Feb-Nov 2021

TUBITAK-1001, 'TARIF : Kendin yap videolarının eşleştirilmesi ve zenginleştirilmesi için çok-kipli yaklaşım'.
Researcher — 2019-2022

TUBITAK and European Science Foundation (EUROCORES Programme EUROGIGA), 'Geometric representations and symmetries of graphs, maps and other discrete structures and applications in science' (GReGAS).
Researcher — Jan-May 2012

EXTERNAL SERVICE	**Journal Reviewer**	
	Australasian J. of Combin.	2016
	Cent. Eur. J. of Math.	2013
	Combin. Probab. Comput.	2014
	Discrete Applied Math.	2015
	Discrete Math.	2011-2018
	Discuss. Math. Graph Theory	2011, 2016
	Electronic J. of Combin.	2019
	Graphs and Combin.	2011, 2014
	Hacettepe J. of Math. and Stat.	2013, 2014
	J. Graph Theory	2012, 2014, 2020
	J. of Combin. Optim.	2016
	Turkish J. of Elec. Eng. Comp. Sci.	2014, 2019
	Turkish J. of Math.	2012, 2013, 2015, 2018
	IEEE Transactions on Industrial Informatics	2017
	J. Combin. Theo. Ser. A.	2017

Leading Roles

Co-organizer of *Special Session on Graph Theory* at AMS Central Section Meeting. Iowa City.   2011