

Şirag Erkol

CONTACT INFORMATION	Indiana University Luddy School of Informatics, Computing, and Engineering Center for Complex Networks and Systems Research 1015 E 11 th St, Bloomington, IN 47408	(812) 558-8938 serkol@iu.edu siragerkol@gmail.com siragerkol.github.io
EDUCATION	Indiana University , Bloomington, IN <i>Ph.D. in Informatics, Complex Networks and Systems track</i> <ul style="list-style-type: none">• Advisor: <i>Assoc. Prof. Filippo Radicchi</i>• Minor: Computer Science <i>M.S. in Informatics</i> Boğaziçi University , Istanbul, Turkey <i>M.S. in Industrial Engineering</i> <ul style="list-style-type: none">• Advisor: <i>Assoc. Prof. Gönenç Yücel</i>• Thesis Title: <i>Influence Maximization Based on Partial Network Structure Information: A Comparative Analysis on Seed Selection Heuristics</i> <i>B.S. in Industrial Engineering</i> <ul style="list-style-type: none">• Graduation Project: <i>Analyzing Parking Stand Requirements for Istanbul Ataturk Airport</i>	August 2017 – present September 2014 – August 2016 September 2010 – June 2014
ACADEMIC EXPERIENCE	Indiana University , Bloomington, IN <i>Research & Teaching Assistant</i> <ul style="list-style-type: none">• Assisted courses: INFO-I 369 - Performance Analytics (Spring 2020, Spring 2021) Boğaziçi University , Istanbul, Turkey <i>Research & Teaching Assistant</i> <ul style="list-style-type: none">• Assisted courses: IE 312 - Facilities Design and Planning (Fall 2014, Fall 2015, Fall 2016) IE 350 - Systems Science and Engineering (Spring 2015, Spring 2016) IE 484 - Simulation Gaming and Decision Experimentation (Fall 2016) IE 48F - Agent-Based Modeling and Simulation (Spring 2015, Spring 2016, Spring 2017) IE 550 - Dynamics of Socio-Economic Systems (Fall 2015)• Assistant at Socio-Economic System Dynamics (SESDYN) Laboratory	August 2017 – present October 2014 – August 2017
WORK EXPERIENCE	Pacific Northwest National Laboratory , Richland, WA <i>Ph.D. Intern</i> <p>I worked on multiple projects on influence maximization. I designed heuristic methods for the influence maximization problem on static networks, and analyzed their efficiency on small and large scale networks. I worked on the adaptive influence maximization problem in temporal networks, designing methods to increase the effect size of seed sets.</p>	June 2021 – August 2021
HONORS & AWARDS	IU Luddy Summer Research Award (\$4400)	2022
PUBLICATIONS	Published: Effective submodularity of influence maximization on temporal networks Ş. Erkol , D. Mazzilli and F. Radicchi, <i>Physical Review E</i> , 106, 034301 (2022) [DOI] [arXiv]	

Who is the best coach of all time? A network-based assessment of the career performance of professional sports coaches

Ş. Erkol and F. Radicchi, *Journal of Complex Networks*, 9, cnab012 (2021)

[DOI] [arXiv] [Website]

Influence maximization on temporal networks

Ş. Erkol, D. Mazzilli and F. Radicchi, *Physical Review E*, 102, 042307 (2020)

[DOI] [arXiv]

Systematic comparison between methods for the detection of influential spreaders in complex networks

Ş. Erkol, C. Castellano and F. Radicchi, *Scientific Reports*, 9, 15095 (2019)

[DOI] [arXiv]

Influence maximization in noisy networks

Ş. Erkol, A. Faqeeh and F. Radicchi, *EPL*, 123, 58007 (2018)

[DOI] [arXiv]

Influence Maximization Based on Partial Network Structure Information: A Comparative Analysis on Seed Selection Heuristics

Ş. Erkol and G. Yücel, *International Journal of Modern Physics C*, 28, 1750122 (2017)

[DOI]

Under Review:

Consistency pays off in science

Ş. Erkol, S. Sikdar, F. Radicchi, and S. Fortunato

[arXiv] [GitHub] [Website]

PRESENTATIONS

Talks:

Effective submodularity of influence maximization on temporal networks,
NetSci 2022, Online

July 2022

Influence maximization on temporal networks, Networks2021, Online

July 2021

Influence maximization on temporal networks, University of Limerick,
Ireland, Online

March 2021

Posters:

Systematic comparison between methods for the detection of influential
spreaders in complex networks, NetSci 2020, Online

September 2020

Influence maximization in noisy networks, NetSci 2019, Burlington, VT, USA

May 2019

COMMUNITY SERVICE

Journal Reviewer: Applied Mathematics and Computation; Chaos, Solitons & Fractals; Expert Systems with Applications; IEEE Transactions on Network Science and Engineering; Journal of Computational Science; Pattern Recognition

Conference Reviewer: ISSI 2023

Journal Subreviewer: PLoS One

COMPUTER SKILLS

Frequent user of Python, L^AT_EX
Experience in Django, NetLogo, HTML, CSS
Familiar with MySQL, C, R, Git, Stella

LANGUAGES

English (fluent), Turkish (native), Armenian (native), French (beginner), Spanish (beginner)