

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: 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, <i>Journal of Complex Networks</i> , 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:

Effective submodularity of influence maximization on temporal networks

Ş. Erkol, D. Mazzilli and F. Radicchi

[arXiv]

PRESENTATIONS

Talks:

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, Online

September 2020

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

May 2019

COMMUNITY SERVICE

Journal Reviewer: Chaos, Solitons & Fractals; Expert Systems with Applications; Journal of Computational Science; Pattern Recognition

Journal Subreviewer: PLoS One

COMPUTER SKILLS

Frequent user of Python, \LaTeX

Experience in Django, NetLogo, HTML, CSS

Familiar with MySQL, C, R, Git, Stella

LANGUAGES

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

Last updated: June 13, 2022