Şirag Erkol

CONTACT Information

Northwestern University

Center for Science of Science and Innovation

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ACADEMIC POSITIONS

Northwestern University, Evanston, IL

Postdoctoral Researcher

July 2023 - present

Indiana University, Bloomington, IN

Research & Teaching Assistant

August 2017 - May 2023

• Assisted courses:

INFO-I 369 - Performance Analytics (Spring 2020, Spring 2021)

Boğaziçi University, Istanbul, Turkey

Research & Teaching Assistant

October 2014 - August 2017

• 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

EDUCATION

Indiana University, Bloomington, IN

August 2017 - May 2023

Ph.D. in Informatics, Complex Networks and Systems track

• Advisor: Assoc. Prof. Filippo Radicchi

• Thesis: Identifying Influential Spreaders in Complex Networks

• Minor: Computer Science

M.S. in Informatics

Boğaziçi University, Istanbul, Turkey

M.S. in Industrial Engineering

September 2014 – August 2016

• Advisor: Assoc. Prof. Gönenç Yücel

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

B.S. in Industrial Engineering

September 2010 – June 2014

 $\bullet \ \ {\it Graduation Project: Analyzing Parking Stand Requirements for Istanbul\ Ataturk\ Airport}$

Work Experience Pacific Northwest National Laboratory, Richland, WA

June 2021 - August 2021

Ph.D. Intern

Honors & Awards

IU Luddy Summer Research Award (\$4400)

2022

Publications Published:

Consistency pays off in science

Ş. Erkol, S. Sikdar, F. Radicchi, and S. Fortunato, *Quantitative Science Studies*, 4, 491 (2023)

[DOI] [arXiv] [GitHub] [Website]

Effective submodularity of influence maximization on temporal networks

Ş. Erkol, D. Mazzilli and F. Radicchi, *Physical Review E*, 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

 $\P.$ 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]

Presentations

Talks:

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

Influence maximization on temporal networks, Networks2021, Online

Influence maximization on temporal networks, University of Limerick, March 2021 Ireland, Online

Posters:

Consistency pays off in science, ICSSI 2023, Evanston, IL, USA June 2023

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

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, LATEX

Experierce 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: July 4, 2023

July 2021