

Nataša Dragović

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Academic Positions

University of St. Thomas Assistant Professor (Fall 2023–present)

Tufts University Norbert Wiener Assistant Professor (Fall 2020–Summer 2023)

Education

University of Texas at Austin Ph.D. in Mathematics (2014–2020)

Advisor: François Baccelli

Thesis: On the Poisson Follower Model

Fields: Probability, stochastic geometry, dynamical systems, opinion dynamics

Massachusetts Institute of Technology B.S. in Mathematics (2010–2014)

Minor: Economics

Research Interests

Probability theory, stochastic geometry, dynamical systems, opinion dynamics, social and political modeling, mathematical models of elections.

Grants

St. Thomas Faculty Research Grant Spring 2025, Fall 2026

Tufts DISC Seed Grant 2022–2024, PI

NSF LEAPS-MPS Recommended but not funded (Summer 2025), PI

Publications

Journal Articles

- [BDH24] C. Börgers, N. Dragovic, and A. Haensch. “Political Centrism and Extremism: A Mathematical Analysis,” in: *SIAM News* (January 19, 2024).
- [Dra25] N. Dragovic. “How to Win Elections in a Dynamically Evolving Electorate”. In: *SIAM News* (October 21, 2025).

- [BDK26] C. Börgers, N. Dragovic, and A. Kirshtein. “Candidate voter dynamics”. In: *Physica A: Statistical Mechanics and its Applications* 682 (2026), p. 131176. ISSN: 0378-4371. DOI: <https://doi.org/10.1016/j.physa.2025.131176>. URL: <https://www.sciencedirect.com/science/article/pii/S0378437125008283>.
- [Bör+24] C. Börgers, N. Dragovic, A. Haensch, A. Kirshtein, and L. Orr. “ODEs and Mandatory Voting”. In: *CODEE Journal* 17 (2024).
- [Bör+23] C. Börgers, B. Boghosian, N. Dragovic, and A. Haensch. “A Blue Sky Bifurcation in the Dynamics of Political Candidates”. In: *The American Mathematical Monthly* 131.3 (2023), pp. 225–238. DOI: [10.1080/00029890.2023.2286221](https://doi.org/10.1080/00029890.2023.2286221). eprint: <https://doi.org/10.1080/00029890.2023.2286221>. URL: <https://doi.org/10.1080/00029890.2023.2286221>.
- [C B+23] C. Börgers, N. Dragovic, A. Haensch, and A. Kirshtein. “A particle method for continuous Hegselmann-Krause opinion dynamics”. In: (2023).
- [Hae+23] A. Haensch, N. Dragovic, C. Borgers, and B. Boghosian. “A Geospatial Bounded Confidence Model Including Mega-Influencers with an Application to COVID-19 Vaccine Hesitancy”. In: *Journal of Artificial Societies and Social Simulation* 26.1 (2023), p. 8. ISSN: 1460-7425. DOI: [10.18564/jasss.5027](https://doi.org/10.18564/jasss.5027). URL: <http://jasss.soc.surrey.ac.uk/26/1/8.html>.
- [PD22] M. Payton and N. Dragovic. “How To Convince People To Get A COVID-19 Vaccine: An Opinion Dynamics Model”. In: (2022).
- [Dra20] N. Dragovic. “On the Poisson Follower Model, PhD Thesis”. In: (2020). DOI: <https://hdl.handle.net/2152/86699>.

Preprints

- [ZD26] M. Zuo and N. Dragovic. *Analyzing Swing States in Presidential Elections: The Case of Wisconsin*. 2026.
- [DB23] N. Dragovic and F. Baccelli. *On the Poisson Follower Model*. 2023.
- [Hae+22] A. Haensch, N. Dragovic, C. Börgers, and B. Boghosian. *Covid-19 vaccine hesitancy and mega-influencers*. 2022. URL: <https://arxiv.org/abs/2202.00630>.

Teaching Experience

University of St. Thomas

Probability	Fall 2023–Spring 2026
Calculus I & II	Fall 2023–Spring 2026
Complex Analysis	Fall 2025
Honors Seminar: Study Abroad	Spring 2026

Tufts University

Probability	Fall 2021–2022
Complex Analysis	Spring 2021–2023
Multivariable Calculus	Fall 2020–Spring 2022
Mathematical Foundations of Data Science	Summer 2022

Leadership Positions and Service

- Faculty Mentor, Center for Mathematics and Democracy, Wellesley College Summer 2025
- Faculty Mentor, CAM Summer Program, University of St. Thomas 2024–2025
- Committee Member, Statistics and Data Science Program, U. of St. Thomas 2023–present
- General Secretary, International Olympiad on Astronomy and Astrophysics 2023–present
- Mathematics Dept. Honors Committee, Tufts University Spring 2023
- Mentor, T-TRIPODS DIAMONDS Program, Tufts University Summer 2022
- Master’s Thesis Committee Member, Tufts University Spring 2022
- Undergraduate Research Mentor, Tufts University Summer 2023
- Academic Advisor, Tufts University 2021–2023
- Listening Project Participant, Tufts University 2021–2022
- Member, Association for Women in Mathematics (Tufts) 2021–2023
- President, USA Astronomy and Astrophysics Organization 2018–2021
- DEI Committee Member, Tufts Mathematics Department 2020–2021
- Faculty Mentor, Directed Reading Program, Tufts University 2020–2023
- Outreach Committee Member, Tufts Mathematics Department 2020–2023
- Organizer, Undergraduate Directed Reading Program, UT Austin 2016–2018
- Inclusive Classrooms Certificate Program Nov 2019
- Member, Graduate Women in Mathematics, UT Austin 2016–2020
- Saturday Morning Math Club Speaker, UT Austin 2015

Selected Talks

2026

- Lunar New Year and Calendars, Mathy Hour, St. Thomas University
- International Olympiads as a way to build an educator’s network, Belgrade, Serbia

2025

- How to win elections in a dynamically evolving opinion space, MAA NCS, St. Paul
- Introduction to Graphs, Mumbai (Ascend International School)
- Political Campaign Strategies, HBCSE, Mumbai
- Introduction to Graphs, Udayachal High School, Mumbai
- Political Centrism and Extremism, University of Bucharest
- Political Centrism and Extremism, Macalester College
- How to win elections in a dynamically evolving electorate, SIAM CSE
- How to win elections in a dynamically evolving electorate, JMM Seattle
- Political Centrism and Extremism, Augsburg University

2024

- IOAA: A Primer, IAU Seminar
- Introduction to Graphs, Rio de Janeiro
- ODEs and Mandatory Voting, MAA North Central Section
- Particle Method for Hegselmann–Krause Dynamics, Complex Networks Conference

2023

- Political Centrism and Extremism, St. Thomas University
- Perils of Political Centrism, SIAM Dynamical Systems
- Opinion Dynamics – Theory and Applications, multiple venues
- Generative Models on Graphs, JMM Boston

2022

- Perils of Political Centrism, Brown University
- Perils of Political Centrism, Boston University
- COVID-19 Vaccine Hesitancy model, Central Bank of Armenia
- Opinion Dynamics Introduction, Tufts Symposium
- AMS Sectional Meeting talk

2021–Earlier

- Probability and stochastic processes talks, UT Austin / Tufts seminars
- Cube and its Magic, Saturday Morning Math Club
- Dynamics on billiards, UT Austin

Outreach

IOAA leadership, US astronomy and astrophysics competition coaching, high school lectures in India, Brazil, and US, DRP mentoring, and public STEM outreach, Putnam competition preparation.

Conferences Attended

2026

- BIRS Workshop on The Mathematics of Elections, Fairness, and Representation, Banff, Canada

2025

- Social Choice: Theory and Computation, Wellesley College, MA
- MAA North Central Section Fall Meeting, St. Paul, MN
- SIAM CSE Conference, Fort Worth, TX
- Nonlinear Processes in Oceanic and Atmospheric Flows, Barcelona, Spain
- Joint Mathematics Meeting, Seattle, WA
- Mathematics of Voting and Representation, Edinburgh, UK

2024

- MAA North Central Spring Meeting, Minneapolis, MN
- Mathematics of Voting and Representation (related workshop), UK
- Complex Networks and Applications Conference, Menton, France

2023

- LINCS Annual Workshop, Paris, France
- SIAM Applied Dynamical Systems Conference, Portland, OR
- DISC and TIAI Symposium, Tufts University
- WiDS Cambridge, MA
- Joint Mathematics Meeting, Boston, MA

2022

- Shaw–IAU Workshop on Astronomy for Education (online)
- Mathematics of Social Systems, Berlin, Germany

- AMS MRC: Data Science at the Crossroads, Buffalo, NY
- CRM Workshop on Reaction-Diffusion Models, Montreal, Canada
- AMS Eastern Sectional Meeting (virtual)

2021–2016

- Tufts TRIPODS Ideas Lab, Tufts University
- Joint Mathematics Meeting, Baltimore
- Probability and stochastic processes workshops (various)
- Simons Conferences on Networks and Stochastic Geometry, UT Austin
- DRP Workshop, MIT
- Texas A&M / UT Austin Probability workshops
- Summer schools in probability (Northwestern and UCSD)