

Curriculum Vitae

Personal Details

Nir Fulman

Date of Birth: 17/10/1988

E-mail: nirfulma@post.tau.ac.il, fulmannir@gmail.com

Web:

https://www.researchgate.net/profile/Nir_Fulman

<https://gis.stackexchange.com/users/49310/nir>

Education

PhD	2017 –	School of Geoscience, Tel Aviv University (TAU)
B.A (Summa Cum Laude)	2013 – 2015	Geography, Excellency Program, Tel Aviv University

Honors and Awards

2020	The Israeli Center for Promoting Research in Smart Transportation (ISTRIC) Excellency Scholarship
2017	Rector "List of Top 100" Excellent Junior Lecturers
2015, 2016, 2018	Dept. of Geography and Human Environment Excellency Award
2016 – Present	Geosimulation and Spatial Analysis Lab Scholarship

Employment History

2016 – 2020	Lecturer	Dept. of Geography and Human Environment, Faculty of Exact Sciences, Tel Aviv University, IL
2015 – 2017	Teaching Assistant	Dept. of Geography and Human Environment, Faculty of Exact Sciences, Tel Aviv University, IL

Research Projects

Ongoing

2020 –	Jerusalem Municipality: "Jerusalem Parking Policy for the 2020s"
2020 –	"Exploring Commuting Patterns via Spatio-Temporal Clustering of Smart-Card Boarding Points for Public Transit Planning"
2020 –	"Linking Environmental Attributes and Well-Being in Patients after Coronary Artery Bypass Graft Surgery"

Complete

2020 – 2020	Tel Aviv Municipality: "Examining the Impact of Limiting Residential Parking Permits to One per Household Using Spatially-Explicit tools"
2018 – 2019	Survey of Israel: "From Proprietary to Open Management and Analysis of Governmental Spatial Big Data"
2017 – 2020	Israel Scientific Foundation: "Tessellation of Urban Parking Prices"
2017 – 2019	Transportation Innovation Institute of Tel Aviv

University: "Adaptive Dynamic Parking Pricing: From Theory to Practical Implementation"

Educational Activities

(a) Courses Taught.

QGIS programming for analysts	2018 (Dec.)	---	Survey of Israel
	2019 (Jan.)	---	Jerusalem Municipality – GIS department
QGIS: An introduction	2018 (Sept., Dec.)	---	Survey of Israel
	2019 (January)	---	Israel Police Dept.
Geographic Information Systems 2	2019 – 2020	B.A	TAU
Geographic Information Systems 1	2018 – 2019	B.A	TAU
Introduction to GIS for Urban Planners	2016 – 2018	M.A	TAU

(b) Academic Workshops

GIS for urban applications	2018	M.A	TAU City Center
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(c) Courses Served as T.A.

Geographic Information Systems 1	2015 – 2017	B.A	TAU
Geographic Information Systems 2	2015 – 2017	B.A	TAU
Introduction to Geoinformatics	2015 – 2016	B.A	TAU
Quantitative Methods	2015 – 2016	B.A	TAU

Extracurricular Activities

2018 – Present	Member	Bashaar - Academic Community for Israeli Society
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Journal Publications

Published or accepted for publication

1. **Fulman, N., & Benenson, I.** Approximation of Search Times for On-street Parking Based on Supply and Demand. **Transportation Science** (accepted for publication, 2021).
2. **Sadeh, S., Brauer, M., Dankner, R., Fulman, N. & Chudnovsky, A.** (2021). Remote sensing metrics to assess exposure to residential greenness in epidemiological studies: a population case study from the Eastern Mediterranean. **Environment International**, 146.
3. **Fulman, N., Benenson, I. & Ben-Elia, Eran.** (2020). Modeling Parking Search Behavior in the City Center: A Game-Based Approach. **Transportation Research Part C: Emerging Technologies**, 120.
4. **Fulman, N., & Benenson, I.** (2019). Establishing heterogeneous parking prices for uniform parking availability for autonomous and human-driven vehicles. **IEEE Intelligent Transportation Systems Magazine**, 11(1), pp. 15-28.

Book Chapters

1. **Benenson, I., & Fulman, N.** (2021) "The simple complex phenomenon of urban parking." *Upcoming edited volume*. Edited by Juval Portugali.
2. **Fulman, N., & Benenson, I.** (2020) "Establishing and assessing adaptive parking prices in a city: Algorithms, software and examples." *Parking regulation and management: The emerging tool for a sustainable city*. Edited by Daniel Albalade, and Albert Gragera, pp. 46-61, Routledge.

Conference Proceedings

1. **Fulman, N., & Benenson, I.** Spatially-explicit toolset for establishing and assessing heterogeneous parking prices in the smart city. In: Proceedings of the 5th International Conference Smart Data, Smart Cities (SDSC 2020). ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences 6 (2020): 63-70
2. **Fulman, N., Benenson, I., & Ben-Elia, Eran.** To quit or to cruise? Modeling parking search decisions based on serious games. In: Proceedings of the 11th International Workshop on Agents in Traffic and Transportation (ATT 2020), held in conjunction with ECAI 2020. CEUR Workshop Proceedings, 2701, pp. 24-30 (2020).
3. **Fulman, N., & Benenson, I.** Agent-based modeling for transportation planning: A method for estimating parking search time based on demand and supply. In: Proceedings of the 10th International Workshop on Agents in Traffic and Transportation (ATT 2018). CEUR Workshop Proceedings, 2129, pp. 31-39 (2018)
4. **Fulman, N., & Benenson, I.** Simulating parking for establishing parking prices. In: Proceedings of the 8th International Conference on Ambient Systems, Networks and Technologies (ANT 2017). Procedia Computer Science, 109, pp. 911-916 (2017).

Lectures at Conferences and Meetings

1. **Fulman, N. & Benenson, I.** (2017), *Pricing parking using a static and spatially-explicit model*. Annual Conference of the Israeli Regional Science Association, Acre, Israel.
2. **Fulman, N., & Benenson, I.** (2017), *Simulating parking for establishing parking prices*. 8th International Conference on Ambient Systems, Networks and Technologies (ANT 2017), Madeira, Portugal.
3. **Fulman, N., & Benenson, I.** (2017), *Parking search time: An ultimate explanation*. Seminar on Information and Incentives as Means for Promoting Transportation System Objectives, Haifa, Israel.
4. **Fulman, N., & Benenson, I.** (2017), *A spatially explicit model for establishing adaptive parking prices*. Geocomputation, Leeds, UK.
5. **Fulman, N., & Benenson, I.** (2017), *Why do we search for parking for so long?* The European Colloquium on Theoretical and Quantitative Geography, York, UK.
6. **Fulman, N., & Shaham, Y.** (2017), *In search of behavioral heuristics – From agent-based to game-based urban modeling: Drivers' parking searching behavior*. Smart Cities Conference: Potentials, Prospects and Discontents, Tel Aviv, Israel
7. **Fulman, N., & Benenson, I.** (2017), *Why does parking search take such a long time?* 58th Israeli Geographical Association Conference, Beer-Sheba, Israel.
8. **Fulman, N., & Benenson, I.** (2018), *Simulations and serious games for urban parking planning*. Geography department research seminar, Tel Aviv, Israel.
9. **Fulman, N., & Benenson, I.** (2018), *ABM as a tool for transportation planning: Mapping parking search time*. 10th International Workshop on Agents In Traffic and Transportation (ATT 2018) held in conjunction with ECAI/IJCAI, AAMAS and ICML conferences (FAIM 2018), Stockholm, Sweden.
10. **Fulman, N., Benenson, I., & Ben-Elia, Eran.** (2019), *Unraveling the spatial and temporal cruising patterns with a serious parking game*. 59th ERSA Congress Cities, Regions and Digital Transformations: Opportunities, Risks and Challenges, Lyon, France.
11. **Fulman, N., Benenson, I., & Ben-Elia, Eran.** (2019), *Revealing drivers' parking behavior with a Serious Game*. The 21st European Colloquium on Theoretical and Quantitative Geography (ECTQG), Mondorf-Les-Bains, Luxembourg.

12. **Fulman, N., Benenson, I., & Ben-Elia, Eran.** (2020), *To quit or to cruise? Modeling parking search decisions based on serious games Agents in Traffic and Transportation*. 11th International Workshop on Agents in Traffic and Transportation (ATT 2020), held in conjunction with ECAI 2020, virtual conference.
13. **Fulman, N., & Benenson, I.** (2020), *Spatially-explicit toolset for establishing and assessing heterogeneous parking prices in the smart city*. 5th International Conference on Smart Data, Smart Cities (SDSC 2020), virtual conference.
14. **Fulman, N., Ogulenko, A., & Benenson, I.** (2020), *The Complex yet Manageable System of Urban Parking*. Urban Complex Systems, A Workshop Satellite of the Conference on Complex Systems 2020, virtual conference.

Seminar Presentations at Universities and Institutions

1. **Fulman, N.** (2018), *Getting parking prices right in heterogeneous urban spaces: theoretical models, serious games and agent-based simulations*. Smart Cities summer program, City Center, Tel Aviv, Israel.
2. **Fulman, N., & Benenson, I.** (2018), *From proprietary to open source tools for management and analysis of governmental spatial big data*, Survey of Israel conference, Ma'ale HaHamisha, Israel.
3. **Fulman, N., & Benenson, I.** (2019), *Simulating parking for establishing demand-responsive parking prices*. Faculty of Social Sciences, Tel Aviv University, Israel.
4. **Fulman, N.** (2019), *Modeling urban parking search*. Here-Mobility research group's meetup, Ra'anana, Israel
5. **Fulman, N.** (2019), *Data-driven parking policy*. Smart Cities summer program, City Center, Tel Aviv, Israel.

Reviewer for Academic Journals

1. Journal of Location Based Services (Taylor & Francis, ISSN: 17489725).

Reviewer for Scientific Conferences

1. hEART 2017: 6th Symposium of the European Association for Research in Transportation, 2017.
2. IEEE 23rd International Conference on Intelligent Transportation Systems (ITSC), 2020.

Selected Media Coverage

1. Smarter Pricing Could Ease Parking Frustration (2018). **Scientific American**. Available at: <https://www.scientificamerican.com/podcast/episode/smarter-pricing-could-ease-parking-frustration/>
2. Next Up: Bidding for Parking? (2019). **Tel Aviv University Review 2019**. Available at: https://english.tau.ac.il/sites/default/files/media_server/all-units/TAUReview2019_27.05.19.pdf

Software and development languages/environments:

GIS desktop: QGIS, ArcGIS, MapInfo, GeoDa

Database management system: PostgreSQL/PostGIS

Software development: Python, C#, SQL

Statistics: Stata, R, SPSS