TEL-AVIV UNIVERSITY

Name:	**Itzhak Benenson,**
Academic degree:	Ph.D. (Mathematical Biophysics),
Faculty:	Humanities
Dept:	Geography and Human Environment
E-mail:	bennya@post.tau.ac.il
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Marital status:	Married
No of children:	3

MAIN RESEARCH TOPICS

- Mathematical modeling and simulation of complex system dynamics with applications to urban, transport and ecological systems,
- Environmental impact assessment and modeling of human impact
- Applications of GIS in environmental, land use and transportation studies
- Applied statistics and geostatistics.

A. EDUCATION

Period	Name of University	Subject	Degree	Date
1970 – 1975	Urals State University, Sverdlovsk, Russia.	Mathematics (Algebra)	MS	1975
1980 – 1984	Moscow State University, Moscow, Russia.	Mathematical Biophysics	PhD	1984

Title of Master's thesis:	The structures of quasi-manifolds of graphs
Names of supervisors:	Prof. A. Zamyatin
Title of Doctoral dissertation:	Persistence of unusual system of sex determination in lemmings and its ecological and evolutionary consequences
Names of supervisors:	Prof. A. Bazykin, Prof. V. Smirnov.

C. ACADEMIC AND PROFESSIONAL EXPERIENCE

Period	Name of Institution	Department	Last position
1975 – 1991	Academy of Sciences of the USSR, Institute of Plant and Animal Ecology, Sverdlovsk	Division of Applied Ecology	Senior Researcher, Head of System Analysis Group
1991 – 1995	Tel-Aviv University	Dept of Geography and Human Environment	Researcher
1995 – 1999	Tel-Aviv University	Dept of Geography and Human Environment	Lecturer
1999 – 2005	Tel-Aviv University	Dept of Geography and Human Environment	Senior Lecturer
2001 – 2005	Tel-Aviv University	Environment Simulation Laboratory	Deputy Head
2001	North Connecticut State University	Sociology	Visiting scientist
2002	University of Rome, La Sapienza	Planning	Visiting scientist
2004	Tokyo University of Science	Management	Visiting professor
2005 - 2011	Tel-Aviv University	Dept of Geography and Human Environment	Associated Professor
2006 - now	Tel-Aviv University	Geosimulation and Spatial Analysis Lab	Head
2007	Radboud University, Nijmegen, Holland	Management	Visiting professor
2008 - 2013	Tel-Aviv University	Dept of Geography and Human Environment	Department head
2011 - now	Tel-Aviv University	Dept of Geography and Human Environment	Full Professor
2011 - now	Technion – Israeli Institute of Technology	Faculty of Architecture and Town Planning	Adjunct Professor

D. ACTIVE PARTICIPATION IN SCIENTIFIC MEETINGS
(Organizing committees, invited lectures, session chairing)

2002	NECSI annual conference, New Hampshire, USA, Special session on urban dynamics, organizing and chair
2002	From 2002, member of the steering committee of the annual international conference on Geocomputation
2002	Haifa, Israel, GIS in Education, Plenary lecture "Spatial analysis with GIS" by invitation
2002	Beer Sheba, Israel, Israeli Geographic Association annual conference, GIS session chair
2003	'Existenze' Institute on Complex Systems of European Community, Lyon, France, plenary lecture "Spatially Explicit Agent-Based Modeling" by invitation
2003	Tel-Aviv, Israeli Geographic Association annual conference, Special session on GIS-application, organizing and chair
2004	Geoinformatics 2004, Gavle, Sweden, Session on GIS-based modeling chair
2004	European workshop on complex system dynamics, Ascona, Swiss, plenary lecture "City as a Human-Driven System" by invitation
2004	Tel-Aviv, Israeli Geographic Association annual conference, Special sessions on 'Advances in Spatial Modeling," session organizing
2005	Urban social dynamics, Sussex, UK, PC member
2005	AGILE2005 annual conference, Lisbon, Portugal, PC member
2005	GISPlanet2005 international conference, Estoril, Portugal, member of the scientific board

2005	Annual Meeting of Israeli Association for Cartography and GIS, Tel-Aviv, March 2005, organizer
2005	The IEEE Conference on signal-image technology and internet-based systems, Yaounde, Cameroon, member of the scientific board
2006	AGILE2006 annual conference, Hungary, PC member
2006	NordicGIS workshop, Gavle, Sweden – Invited course of lectures
2006	Design and Decision Support Systems, Eindhoven, Netherlands, PC member
2006	European Conference on Complex Systems, Oxford, UK, invited lecture and the Urban Dynamics session
2006	47th Annual Meeting of Israeli Geographic Association, Head of the Organizing Committee
2007	AGILE2007 annual conference, Denmark, PC member
2007	Annual International Conference for the Royal Geographic Society, Guest of the Modeling Research Group
2007	Geocomputation 2007, Maynooth, Ireland, PC member
2008	AGILE2008 annual conference, Denmark, PC member
2009	3rd ICA Workshop on Geospatial Analysis and Modelling, August, 2009, Gävle, Sweden, Invited Lecture
2009	AGILE2009 annual conference, Hannover, Germany, PC member
2009	32nd Annual Conference on Artificial Intelligence, Paderborn, Germany, September, 2009, PC member
2009	Geocomputation 2009, Sidney, Australia, PC member
2010	International Geographical Union, GIS Commission meeting and workshop, organizer, Tel Aviv, June 2010
2010	AGILE2010 annual conference, Portugal, PC member
2010	GIScience 2010, Zurich, Switzerland, PC member
2010	Multi-disciplinary approach of complexity, networks, geosimulation University of Lausanne, Switzerland, invited lecture
2011	International Conference on Spatial Data Mining and Geographical Knowledge Services (ICSDM), June 29-July 1, 2011 Fuzhou, China, PC member
2011	Geocomputation 2011, 20-22, July 2011, University College London, UK, PC member
2011	GeoViz, March 2011, Hamburg, Germany, PC member
2011	S4 Modeling Tour, Urban Mobility workshop, Tel Aviv, Israel, Organizer
2011	4th ICA Workshop on Geospatial Analysis and Modeling, August 10-12, Burnaby, British Columbia, Canada, PC member
2011	Workshop "City and Nature", October 03-05, Haifa, Israel, Organizer
2011	Eastern Massachusetts University, November 20-21, two invited lectures
2012	15th International Symposium on Spatial Data Handling, 22-24th August, 2012, in Bonn, Germany, PC member
2012	GIScience 2012, Columbus, Ohio, USA, September 18 to 21, 2012, PC member
2012	AGILE2012 annual conference, France, Avignon, April 2012, PC member
2012	AGILE2012 annual conference, Workshop on "Complexity Modeling for Urban Structure and Dynamics" France, Avignon, April 2012, Organizer
2012	ATT 2012, International Workshop on Agents in Traffic and Transportation, June 4-5, Valencia, Spain
2013	World Parking Symposium, Tel Aviv, June 2013, Organizer
2013	Epistemological Perspectives on Simulation (EPOS), Trinity University, San Antonio, Texas, October 10-13, 2013, PC member
2013	AGILE2013 annual conference, Leuven, Belgium, 14-17 May 2013, PC member
2013	GEOG-AND-MOD 13, 8th International Conference on "Geographical Analysis, Urban Modeling, Spatial Statistics" PC member Hanoi, June 24-27, Ho Chi Minh City, Vietnam, PC

	member
2013	ICA workshop on Street Network and Transport, Dresden, Germany, August 23-24, PC member
2013	Olomouc, Czech Republic, InDog 2013 conference, October 14-18, Keynote speaker
2014	Ostrava, Czech Republic, GIS in Transportation conference, January 27-29, Keynote speaker
2014	AGILE2014 annual conference, 3-6 June 2014, Castellón, Spain, PC member
2014	Regional Science Association International (RSAI), 10th World Congress, Bangkok, Thailand May 27-29, Scientific Committee
2014	International summer school on Spatial structures and Dynamics: Methods and tools for exploring spatial systems, Florence, Italy, 14 - 19 July 2014, keynote speaker
2014	GIScience 2014, the 8th International Conference on Geographic Information Science, September 23-26, 2014 in Vienna, Austria, PC member
2014	ISPRS/IGU Joint International Conference on Geospatial Theory, Processing, Modelling and Applications, 06-08.10.2014, Toronto, Canada, PC member
2015	GeoComputation 2015 May 21-23, 2015, University of Texas at Dallas, Scientific Advisory Board
2015	Seventh International Workshop "Information Fusion and Geographic Information Systems"(IF&GIS' 2015), May 2015, Grenoble, France, PC member
2015	Second International Conference on Spatial Data Mining and Geographical Knowledge Services (ICSDM), July 8-10, 2015, Fuzhou, P.R. China, PC member
2015	International Conference on Location-based Social Media, Athens, GA, USA, March 5-7, PC Member
2015	AESOP 13th Complexity and Planning Meeting, Tampere, Finland, 15-16of January 2015, Keynote lecture

E. ACADEMIC AND PROFESSIONAL AWARDS

1. 1997 – 1999, *German-Israeli Foundation*, CI, Scientific Grant: Synergetic Inter-Representation Networks and Cognitive Maps, No 1-458-224.06/95, 200000 DM
2. 1997 – 1999, *Porter Super-Center for Ecological and Environmental Studies*, PI, Research Grant: Rehabilitation of Yarqon Stream - Application of Environmental Information System as a Diagnostic, Planning and Management Tool, 30,000 NIS
3. 1998 – 1999, *European Community INTAS Program*, Foreign CI, Scientific Grant: Ecological Consequences of Comb-Jelly Invasion in the Mediterranean Sub-Areas (Black-Azov Seas): Hypotheses, Mechanisms, Regularities, Models, and Predictions, $20,000
4. 1998 – 1999, *Israel Ministry of Science*, PI, Scientific Grant: Development of GIS-HPC Multi-Agent Simulation Model of Urban Residential Dynamics, 80,000 NIS
5. 1998 – 1999, *Tel-Aviv University,* PI, Research Grant: Three-Dimensional Excavation Information System, $5,000
6. 1999 – 2001, *Tel-Aviv University,* PI, Research Grant: "Dynamic partitioning of census data", $5,000
7. 2001-2004 Revson Foundation, CI, Research Grant to the Environmental Simulation Laboratory, $1,200,000, Laboratory Deputy Director in GIS and Modeling,
8. 2004 – 2006 *USAID*, CI, Scientific grant: "Assessing Human Impact on Land Cover Changes in Mali Using Remote Sensing Methods and Geographic Information Systems", $35,000 of $200,000
9. 2004-2005 *Tel-Aviv municipality*, PI, Research grant: "Agent-based modeling of parking policy in the city center", 80,000 NIS
10. 2005-2006 *VATAT,* PI, Research Grant: "Application of modern technologies in university education - development of Fundamentals of Geoinformatics course, 120,000 NIS
11. 2006 University Tel-Aviv, PI, Research Grant: "Modeling human scenes", 10,000 NIS
12. 2006 – 2007 Van Leer Institute, PI, Research Grant: "Study of the spatial distribution of socio-economic groups in Israel", $10,000
13. 2007-2008 Ministry of Science, PI, Scientific Grant: "Measuring accessibility to reduce socio-economic gaps", 91,000 NIS

14. *2007 Breheny Prize for the most innovative paper in Environment and Planning B Journal*
15. 2008-2009 Ministry of Interior, PI, Scientific Grant: "The impact of Outline District Plans on the actual built environment", 200,000 NIS
16. 2008-2011 FP7, Head of the Israeli team, Scientific Grant: "Enhancing resilience of communities and territories facing natural and na-tech hazards", 111,000E of 1,389,000E
17. 2009 – 2012 ISF, PI, Scientific Grant: "Studying Theoretical and Applied Problems of Urban Parking Using the PARKAGENT Spatially Explicit Agent-Based Model", 330,000 NIS
18. Best Poster Award, 12th AGILE International Conference on Geographic Information Science, Hannover, Germany, June 02-05, 2009
19. 2010 – 2013 ISF, Bikura, PI, Scientific Grant: "Towards Socio-Spatial Integration in Late-Modern Societies: The Case of Arab Citizens in Israel", 351,000 NIS
20. 2010 – 2012, Bat Yam Municipality, PI, Research Grant: "Bat Yam transportation development plan: parking", 111,000 NIS
21. 2011 – 2013, Israeli Environment and Health Fund, CI, Research Grant: "The possible association between exposure to air pollution and adverse pregnancy outcomes", $200,000
22. 2013 – 2014, Israeli Ministry of Transport, Research Grant: "Accessibility and Social Equity in Tel-Aviv Metropolitan Area - examination of the current conditions and development scenarios", NIS 243,000
23. 2013 – 2016 ISF, PI, Scientific Grant: " Black Spot Virtual Reality: Assessing Road Safety Based on Explicit Simulation of Drivers' and Pedestrians' Behavior", NIS 318,000
24. 2014 – 2016 ERANET, Coordinator, Head of the Israeli Team "SMART Adaptive Public Transport", E120,000 (of E1,100,000)

F. MEMBERSHIP IN PROFESSIONAL SOCIETIES

- From 1995 – Member of the Israeli Geographic Association,
- From 1998 – European Association of GIS Laboratories (AGILE)
- From 2000 – International conference on Geocomputation, steering committee
- 2004 – 2006 - Head of the "Applied Urban and Regional Modeling" working group of the European Association of GIS Laboratories (AGILE),
- From 2004 – Member of the AGILE conferences program committee
- From 2007 – Member of the Israeli and International Regional Science Association
- From 2009 – Member of the IGU Commission on Geographical Information Science
- From 2009 – Member of European Research Group S4: Spatial Simulation for Social Sciences

G. STUDENTS SUPERVISED

G0. POST-DOCTORAL STUDENTS

1. Michael Galichinsky, Detection of forest fires in Samaria using Meteosat-8/9 data, Ariel University Center (Co-supervising with Dr Yaakov Anker), 2013 - 2014

2. Andrey Shabalov, Modeling Car-Pedestrian accidents at the Black Spots (with Prof Shraga Shoval), 2014 - 2016

G1. DOCTORAL STUDENTS

Graduated

1. Adital Levi "Investigation of Association between Air Pollution and Acute Respiratory Illnesses in Tel-Aviv area, Based on Distribution of Particles in Sputum and Pulmonary Function," Graduated 2006

2. Erez Hatna "Individual Behavior and Emerging City Structure," Graduated 2007, Currently Johns Hopkins University, USA, Assistant Prof

3. Shlomit Flint, School of History, "Statutory planning versus urban reality: Jerusalem as a test case," Graduated 2011, Currently ULC, LOndodn, Postdoc

4. Daniel Broitman, Technion, (Co-supervising with Prof Daniel Czamanski, Technion) "The fusion of economic and non-economic factors in the land-use models", Graduated 2012,

5. Nadav Levy, Porter School of Environmental Science, April 2011, (Co-supervising with Prof Karel Martens, Radboud Univ, Nijmegen, Holland) *"Modeling parking search and parking in the city"*, Graduated 2014

Current

1. Gennady Weitzman, Porter School of Environmental Science, 2007, *"Analysis, reconstruction and simulation of the dynamic scenes with application to the traffic accidents"*

2. Yulia Grinblat, Porter School of Environmental Science, 2009, *"Land-use dynamics over the urban-agriculture-nature interface: from analysis and simulation to the environmental policies"*

3. Yonathan Almagor, Porter School of Environmental Science, 2009, (Co-supervising with Dr. Nurit Alfasi, BGU), *"The role of developers in city dynamics: from the field studies to simulation modeling"*

4. Assaf Chen, BGU, July 2012, (Co-supervising with Prof. Arnon Karnieli, BGU) *"Examining the dynamics of agricultural land use land cover changes in semi-arid to arid environments"*

5. Marina Toger, Technion, July 2012 (Co-supervising with Prof. Daniel Czamanski, Tecnhion) *"The Impact of Urbanization and Land Use Changes on Biodiversity at Urban Edges"*

G2. MA/MSc STUDENTS

Graduated

1. Adital Levi, Dept of Geography, *"Construction of the GIS for the investigation of the archaeological sites spatial distribution,"* graduated February 1998

2. Erez Hatna, Dept of Geography, *"Agent-Based model of population residential dynamics in Yaffo, Tel-Aviv"* graduated November, 2000

3. Rahel Rodnitski, Dept of Geography, *"Comparative study of the street network morphology in the GIS framework"* graduated November 2002.

4. Sigal Mesika, Dept of Geography, *"Development of GIS for estimating fire risk in a forest"* graduated December 2003.

5. Ilanit Melamed, Dept of Geography, *"The use of local segregation measures for estimating spatial distribution of social phenomena"* graduated July, 2004

6. Dov Pash, Dept of Geography, *"Individual segregation in the city local environment,"* graduated March 2005

7. Slava Birfir, Dept of Geography, *"The model of parking search along the streets,"* graduated April 2005

8. Udi Or, Dept of Geography, *"High-resolution investigation of residential distribution in Israeli cities,"* graduated May, 2005

9. Anna Venitsianov, Dept of Geography, *"Development of spatially explicit high-resolution model of urban residential dynamics and its application for Modiin"*, graduated February, 2007

10. Moti Zohar, Porter School, *"Spatial distribution of earthquakes in Mediterranean"*, graduated February, 2007

11. Adi Vitman, Dept of Geography, *"The Influence of the Geographic Location on Development of Non-Agricultural Businesses in Israeli Kibbutzim"* graduated April, 2007

12. Yonatan Almagor, Dept of Geography, *"Study of the land-use dynamics versus development programs, the examples of the Arab settlements Sachnin and Tamra"*, graduated June, 2009, Co-supervising with Dr. Nurit Alfasi, BGU

13. Natalin Bergman, Dept of Geography, BGU, *"The meaning of tolerant behavior in process of urban renewal"*, graduated September 2009, Co-supervising with Dr. Nurit Alfasi, BGU

14. Iddo Porat, Dept of Geography, BGU, *"Long-term planning versus local factors in regional development"*, graduated March 2009, Co-supervising with Dr. Nurit Alfasi, BGU

15. Ariela Kwartler, Dept of Geography, *"Development of GIS-based methodology for estimating accessibility by means of public transport"*, graduated November 2010

16. Nadav Levy, Dept of Geography, *"Development of the model of drivers' parking behavior and cruising for parking in the city"*, graduated December 2010

17. Igor Aksinenko, Dept of Geography, *"Field studies of the drivers' parking behavior"*, graduated July 2011

18. Tiferet Zilberman, Porter School Environment Sciences, *"Vulnerability of the Northern Negev landscapes"*, Graduated September, 2012, Co-supervising with Dr. Gioar Kidron, TAU

19. Uzi Shamir, Dept of Geography, *"Effects of artificial water sources on distribution patterns of desert-dwelling bat species in the Negev and Judea deserts"*, Graduated October 2012

20. David Tal, Dept of Geography, *"Development of the web-based catalog and search engine for the library of historical maps"*, Graduated November 2012

21. Idan Hauz, Dept of Geography, BGU, *"Urban dynamics in Arab towns in Israel Demonstration on Sakhnin"*, Graduated March 2013, Co-supervising with Dr. Nurit Alfasi, BGU

22. Asaf Bar-Yosef, Porter School, *"Vicious loop of public transportation dynamics"*, Graduated 2013, Co-supervising with Prof Yoram Shiftan, Technion and Prof Katel Martens, Radboud Univ, Nijmegen, Holland

23. Omer Ben-Asher, Dept of Geography, *"The factors and feedbacks affecting Bedouin agriculture in the Negev"*, Co-supervising with Dr. Giora Kidron, TAU, Graduated July 2013

24. Lucia Bergovoy Yellin, Porter School, *"Short-Term Effects of Air Pollution on Health"*, Co-supervising with Dr. Chava Peretz, and Dr. Judith Shaham, TAU, Graduated May 2014

25. Amit Rosental, Porter School, *"Construction of high-resolution accessibility maps for the public transport,"* graduated September 2014

Current
1. Einat Roth, Porter School, since 2011, "The loss of small scale agriculture at the urban fringe"
2. Nitzan Neeman, Dept of Engineering, TAU, since 2012, "GIS model of urban runoff"

PEDAGOGICAL ACTIVITY

COURSES

1. INTRODUCTION TO GEOINFORMATICS (BA)
2. FUNDAMENTALS OF GIS, Part 1 and Part 2, (BA)
3. RESEARCH METHODS IN GEOGRAPHY (BA)
4. INTRODUCTION TO SPATIAL MODELING AND SIMULATION (BA)
5. SPATIAL DECISION-MAKING WITH GIS (MA)
6. ESTABLISHMENT OF THE GIS (MA)
7. ADVANCED STATISTICAL METHODS IN GEOGRAPHY (MA)
8. RECENT ADVANCES IN MODELING AND SIMULATION (MA + PHD)

PUBLICATIONS

A. BOOKS and MONOGRAPHS

1. V.N. Bolshakov, V.S. Balakhonov, I.E. Benenson, et al., 1986, *Small mammals of the Urals mountains*, Sverdlovsk, Urals Branch AS USSR, 101 p (Russian, English summary)

2. O.F. Sadykov, I.E. Benenson 1992, *Population Dynamics of Small Mammals: Concepts, Hypothesis, Models*, Moscow, Nauka, 191 p (Russian, English summary)

3. Itzhak Benenson, Paul M. Torrens, 2004, *Geosimulation: Automata-Based Modeling of Urban Phenomena*, London, Wiley, 320 p

4. נ. אטמור, י. בננסון, א. דיסקין, ו. חרבש, 2009, בחירות אזוריות בישראל, מכון ון ליר, 84 עמ'

5. Danielle J. Marceau, Itzhak Benenson (Editors), 2011, *Advanced Geosimulation Models*, Bentham Science Publishers, Hilversum, The Netherlands, http://www.benthamscience.com/ebooks/9781608052226/index.htm

6. Daniel Czamanski, Itzhak Benenson, Daniel Malkinson (Editors), 2014, "Modeling of Land-Use and Ecological Dynamics", Springer-Verlag, 220 p, ISBN-13: 9783642401985

    INVITED BOOK (with contract)

1. Itzhak Benenson, Daniel Czamanski, Daniel Malkinson *The Spatial Dynamics of Cities and Nature*, Springer-Verlag GmbH contract, manuscript to be submitted November 2014

B. REFERED ARTICLES (From 2004)

7. I. Benenson, P. Torrens, 2004, Geosimulation – object-based modeling of urban systems, *Computers, Environment and Urban Systems*, **28**(1/2), 1-8

8. I. Benenson, S. Aronovich, S. Noam, 2005, Let's talk objects: Generic approach to high-resolution urban modeling, *Computers, Environment and Urban Systems*, **29**, 425 - 453

9. P. Torrens, I. Benenson, 2005, Geographic Automata Systems and Urban Simulation, *International Journal of Geographic Information Systems*, **19, N4,** 385–412

10. R. Peled, H. Reuveni, J. S. Pliskin, I. Benenson, E Hatna, A. Tal, 2006, Defining localities of inadequate treatment for childhood asthma: A GIS approach, *International Journal of Health Geographics*, **5**(3), p. 1-9.

11. E. Zapassky, I. Finkelstein, I. Benenson (corresponding author), 2006, Ancient Standards of Volume: Negevite Iron Age pottery (Israel) as a Case Study in 3D Modeling, *Journal of Archaeological Science*, **33**, 1734 – 1743

12. י. בננסון, י. אומר, א. חטנה, 2006, "גיאו-סימולציה של דינאמיקה עירונית", תכנון, 14, 121 - 141

13. I Benenson, 2007, WARNING! The scale of the cellular Automata is Changed, *Computers, Environment and Urban Systems*, **31**, 107-113

14. E. Hatna, I. Benenson, 2007, Building a City *in vitro*: The Experiment and the Simulation Model, *Environment and Planning B*, **34**, 687 – 707

15. I. Benenson, K. Martens, 2008, From modeling parking search to establishing urban policy, *Künstliche Intelligenz*, **3**, p. 3-8

16. K. Martens, I. Benenson, 2008 Evaluating urban parking policies using an Agent-Based model of driver parking behavior, *Transportation Research Records: Journal of the Transportation Research Board*: N2046, 37-44

17. I. Benenson, K. Martens and Birfir, S. 2008, "PARKAGENT: an agent-based model for parking in the city", *Computers, Environment and Urban Systems*, **32**, 431–439

18. E. Zapassky, I. Finkelstein and I. Benenson (corresponding author), 2009, Computing abilities in antiquity: The royal judahite storage jars as a case-study, *Journal of Archaeological Methods and Theory*, **16**(1), 51-67

19. D. Czamanski, I. Benenson, D. Malkinson, et al, 2008, Urban sprawl and ecosystems – can nature survive? *International Review of Environmental and Resource Economics*, **2**, 321-366

20. T. Svoray and I. Benenson, 2009, Scale and validity of environmental microsimulation, *Ecological Complexity,* **6**, 77–79

21. I. Benenson, E. Hatna and E. Or, 2009, From Schelling to Spatially Explicit Modeling of Urban Ethnic and Economic Residential Dynamics, *Sociological Methods and Research,* **37**, 463-497

22. G. J. Kidron, A. Karnieli and I. Benenson (corresponding author), 2010, Predicting soil degradation following cycles of cotton-cereal cultivation in Mali, West Africa, *Soil and Tillage Research*, **106**, 254–262

23. שלומית פלינט ,נורית אלפסי, יצחק בננסון, 2010, דומים ושונים: מיקרו-סגרגציה של חרדים במרכז ירושלים, סוציולוגיה ישראלית, 12(1), 81 - 110

24. I. Benenson, K. Martens, Y. Rofé and A. Kwartler, 2010, Measuring the Gap Between Car and Transit Accessibility Estimating Access Using a High-Resolution Transit Network Geographic Information System, *Transportation Research Record: Journal of the Transportation Research Board*, N2144, 28–35

25. I. Benenson, K. Martens, Y. Rofé and A. Kwartler, 2011, Public transport versus private car: GIS-based estimation of accessibility applied to the Tel Aviv metropolitan area, *Annals of Regional Science*, 47:499–515

26. I. Benenson and E. Hatna, 2011, Minority–Majority Relations in the Schelling Model of Residential Dynamics – overlooked effects, *Geographical Analysis*, **42**(3), 287–305

27. E. Hatna, I. Benenson, 2012, The Schelling Model of Ethnic Residential Dynamics**:** Beyond the Integrated - Segregated Dichotomy of Patterns, *JASSS,* 15(1)*,* 6

28. N. Alfasi, J. Almagor, I. Benenson, 2012, The actual impact of comprehensive land-use plans: Insights from high resolution observations, *Land Use Policy,* 29(4) 862 – 877

29. I. Finkelstein, E. Zapassky, Y. Gadot, I. Benenson (corresponding author), 2012, A Lost Wisdom of Relation Between Units of Length and Volume, PLoS ONE 7(3):e33895. doi:10.1371/journal.pone.0033895

30. S. Flint, I. Benenson, N. Alfasi, 2012, Between Friends and Strangers: Residential Dynamics in a Haredi Neighborhood in Jerusalem, *City & Community, 11(2), 171 - 197*

31. N. Alfasi, S. Flint, I. Benenson, 2012, Between the individual and the community: Residential patterns of the Haredi population in Jerusalem, *International Journal of Urban and Regional Research*, 37(6), 2152–76

32. I. Finkelstein, E. Zapassky, Y. Gadot, D. M. Master, L. E. Stager, I. Benenson (corresponding author), 2011, Phoenician "Torpedo" Storage Jars and Egypt: Standardization of Volume Based on Linear Dimensions, *Egypt and The Levant, 21, 249-259*

33. N. Levy, K. Martens, I. Benenson (corresponding author), 2013, Exploring Cruising for On-Street Parking Using Agent-Based and Analytical Models, Transportmetrica A: Transport Science, 9 (9), 773–797

34. A. Bar-Yosef, K. Martens, I. Benenson (corresponding author), 2013, A model of the vicious cycle of a bus line, Transportation Research Part B, 54, 37–50

35. G. Waizman S. Shoval, I. Benenson (corresponding author), 2013, Micro-Simulation Model for Assessing the Risk of Vehicle-Pedestrian Road Accidents, Journal of Intelligent Transportation Systems, DOI:10.1080/15472450.2013.856721

36. G Kidron, I. Benenson, 2014, Biocrusts serve as biomarkers for the upper 30 cm soil water content, Journal of Hydrology, 509, 398–405

37. Y. Grinblat, G. J. Kidron, A. Karnieli, I. Benenson (corresponding author), 2014, Simulating land-use degradation in West Africa with the ALADYN model, Journal of Arid Environment, DOI: 10.1016/j.jaridenv.2014.05.019

38. Adel Farhi, Valentina Boyko; Yoni Almagor; Itzhak Benenson; Enrico Segre; Yinon Rudich; Eli Stern; Liat Lerner-Geva, 2014, The possible association between exposure to air pollution and the risk for congenital malformations, Environmental Research

SUBMITTED

39. Levy, N., Benenson, I. (corresponding author), 2014, GIS-based Method for Assessing City Parking Patterns. Submitted to the Journal of Transport Geography

40. Levy, N., Render, M., I. Benenson (corresponding author), 2014, Spatially Explicit Modeling of Parking Search as a Tool for Urban Parking Facilities and Policy Assessment. Submitted to Transport Policy

41. Almagor, J., Benenson, I, Czamanski, D., 2014, The evolution of land developers' industry in a planned city: An agent based simulation model, Submitted to CEUS

42. E. Hatna, I. Benenson, 2014, Combining segregation and integration: Schelling model dynamics for heterogeneous population, submitted to JASSS

C. REFEREED ARTICLES IN BOOKS (From 2004)

43. I. Benenson, 2004, Agent-Based Modeling: From Individual Residential Choice to Urban Residential Dynamics, In M. F. Goodchild, D. G. Janelle (eds.) *Spatially Integrated Social Science: Examples in Best Practice*, Oxford University Press, 67-95

44. I. Benenson, P. Torrens, 2005, Chapter 23: A Minimal Prototype for Integrating GIS and Geographic Simulation through Geographic Automata Systems, in P. Atkinson, F. Wu (eds), *Geodynamics*, CRC Press, 347 – 367

45. I. Benenson, S. Birfur, V. Kharbash, 2005, Geographic Automata Systems and the OBEUS software for their implementation, In J. Portugali, (ed), *Complex artificial environments*, Springer, 137-153

46. E. Zapasski, I. Benenson, 2006, Chapter 2: Megiddo Database Next Step: Megiddo Geographic Information System, in I. Finkelstein, B. Halpern and D. Ussishkin (eds.), *Megiddo IV, 1998 – 2002 excavations*, Tel-Aviv University, pp. 19-26

47. E. Hatna, I. Benenson, 2007, Study of Urban Developers' Behavior in a Game Environment, In: Albeverio S.; Andrey D.; Giordano P.; Vancheri A. (Eds.), *The Dynamics of Complex Urban Systems. An Interdisciplinary Approach*, Springer, Berlin Heidelberg New York, 265-286

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