

### **1. Python Spatial Analysis Library (PySAL) Workshop [Workshop]**

**Wednesday | 8:00 am-5:00 pm | Symphonie 2A**

- *Python Spatial Analysis Library (PySAL) Workshop.....*Elijah Knapp, University of California - Riverside; Sergio Rey, University of California - Riverside

### **2. The Regional Science Academy: Advanced Brainstorm Carrefour (ABC) - Words of Welcome [Special Session]**

**Wednesday | 8:55 am-9:00 am | Symphonie 4**

### **3. The Regional Science Academy ABC - Session I [Special Session]**

**Wednesday | 9:00 am-10:30 am | Symphonie 4**

**Organizers:** Louafi Bouzouina, ENTPE; Pui Hang Wong, Maastricht University; Karima Kourtit, Open University, The Netherlands; Peter Nijkamp, Open University, Heerlen, The Netherlands; Tomás Lopes Cavalheiro Ponce Dentinho, Universidade dos Açores; Neil Reid, University of Toledo

**Presider:** Peter Nijkamp, Open University, Heerlen, The Netherlands

- *Sustainable Tourism and Green Total Factor Productivity: A Spatial-Econometric Assessment of Chinese Regions.....*Peter Nijkamp, Open University, Heerlen, The Netherlands; Lei Zhao, University of Technology: Hangzhou; Jamie Chen, Dakota State University
- *Structural Mobility Patterns and COVID-19 Incidence: A Regional Analysis of the Second Wave in the Netherlands.....*Bart Roelofs, University of Groningen; Dimitris Ballas, Groningen University; Hinke Haisma, University of Groningen; Arjen Edzes, University of Groningen
- *The effect of COVID-19 on long-distance transport services in France.....*Florent Laroche, LUNAM Université, F-Nantes

### **4. The Regional Science Academy ABC - Session II [Special Session]**

**Wednesday | 10:45 am-12:45 pm | Symphonie 4**

**Organizers:** Louafi Bouzouina, ENTPE; Pui Hang Wong, Maastricht University; Karima Kourtit, Open University, The Netherlands; Peter Nijkamp, Open University, Heerlen, The Netherlands; Tomás Lopes Cavalheiro Ponce Dentinho, Universidade dos Açores; Neil Reid, University of Toledo

**Presider:** Jaewon Lim, University of Nevada - Las Vegas

- *Which factors influence mobility change during COVID-19 in Germany? Evidence from German county data.....*Andree Ehlert, Harz University of Applied Science; Jan Wedemeier, Hamburg Institute of International Economics
- *Will the COVID-19 hinder or aid the transition to sustainable urban mobility? Spotlight on Portugal's largest urban agglomeration.....*Patricia Melo, James Hutton Institute
- *Evolution of urban mobility behaviour in Brussels as a result of the COVID-19 pandemic.....*Alice de Séjournet, Université catholique de Louvain; Cathy Macharis, Vrije Universiteit Brussel; Sara Marie Tori, vrije universiteit brussel; Lieselot Vanhaverbeke, Vrije Universiteit Brussel

- *What drives the changes in public transport use in the context of the Covid-19 pandemic? Highlights from Lyon metropolitan area.....*Ali El Zein, University of Balamand; Adrien Beziat, Université Gustave Eiffel; Pascal Pochet, ENTPE; Olivier Klein, ENTPE; Stephanie Vincent, ENTPE

### **5. The Regional Science Academy ABC - Session III-A [Special Session]**

**Wednesday | 1:30 pm-3:30 pm | Symphonie 4**

**Organizers:** Louafi Bouzouina, ENTPE; Pui Hang Wong, Maastricht University; Karima Kourtit, Open University, The Netherlands; Peter Nijkamp, Open University, Heerlen, The Netherlands; Tomás Lopes Cavalheiro Ponce Dentinho, Universidade dos Açores; Neil Reid, University of Toledo

**Presider:** Tomás Lopes Cavalheiro Ponce Dentinho, Universidade dos Açores

- *Residential preferences, telework perceptions, and the intention to telework: insights from the Lisbon Metropolitan Area during the COVID-19 pandemic.....*Joao De Abreu e Silva, Instituto Superior Técnico
- *The increase in online shopping during COVID-19: Who is responsible, will it last, and what does it mean for cities.....*Mischa Young, Université de l'Ontario Français; Jaime Soza-Parra, TU Delft; Giovanni Circella, Univ. of California
- *Browsing for food: Will COVID-induced on-line grocery delivery persist?.....*Hannah Younes, Rutgers University; Robert Noland, Rutgers University; Wenwen Zhang, Rutgers University
- *On the bumpy road to recovery: resilience of transit ridership during COVID-19 in 15 European cities.....*Ouassim Manout, ENTPE; Louafi Bouzouina, ENTPE; Karima Kourtit, Open University, The Netherlands; Peter Nijkamp, Open University, Heerlen, The Netherlands

### **6. The Regional Science Academy ABC - Session III-B [Special Session]**

**Wednesday | 3:45 pm-5:00 pm | Symphonie 4**

**Organizers:** Louafi Bouzouina, ENTPE; Pui Hang Wong, Maastricht University; Karima Kourtit, Open University, The Netherlands; Peter Nijkamp, Open University, Heerlen, The Netherlands; Neil Reid, University of Toledo; Tomás Lopes Cavalheiro Ponce Dentinho, Universidade dos Açores

**Presider:** Tomás Lopes Cavalheiro Ponce Dentinho, Universidade dos Açores

- *Behaviour and route choice of cyclists in corona times: modelling Snifferbike experiments in the Netherlands.....*John Osth, OsloMet; Umut Turk, Abdullah Gul University; Karima Kourtit, Open University, The Netherlands; Peter Nijkamp, Open University, Heerlen, The Netherlands
- *Detecting and measuring spatial spillover effects and heterogeneity using interpretable tree-based machine learning approaches: an illustration using the Boston housing dataset.....*Guney Celbis, Yeditepe University; Pui Hang Wong, Maastricht University; Karima Kourtit, Open University, The Netherlands; Peter Nijkamp, Open University, Heerlen, The Netherlands

**Registration [Registration]**

**Wednesday | 4:00 pm-8:00 pm | Grand Salon Opera Foyer**

**Words of Welcome & RSAI Fellows Lecture [Special Session]  
Wednesday | 7:00 pm-8:00 pm | Grand Salon Opera B**

**Organizer:** John Sporing, NARSC

**Presider:** Neil Reid, University of Toledo

- *TO BE ANNOUNCED.....*

**NARSC Icebreaker Reception [Informal meeting]  
Wednesday | 8:00 pm-9:00 pm | Grand Salon Opera Foyer**

**Coffee [Informal meeting]  
Thursday | 7:30 am-8:30 am | Grand Salon Opera Foyer**

**Registration & Exhibits [Registration and Exhibits]  
Thursday | 7:30 am-5:30 pm | Grand-Salon Opera Foyer**

**7. Housing I: The Impact of Proximity [Formal Paper Session]  
Thursday | 8:00 am-10:00 am | Soprano B**

**Presider:** Elijah Knaap, University of California - Riverside

- *Impact of Demolitions on Neighboring Property Values in Detroit.....*Camila Alvayay Torrejon, Michigan State University; Dusan Paredes, Universidad Catolica del Norte; Mark Skidmore, Michigan State University
- *Close competition: The contagion effect of neighborhood listings on seller motivation.....*Mitchell Livy, California State University - Fullerton; Nicholas Irwin, University of Nevada - Las Vegas
- *The impact of affordable housing developments on the values of nearby residential properties.....*Amanda Liddle, Colorado Department of Health Care Policy and Financing; Jeffrey Zax, University of Colorado - Boulder
- *Segregated by Design? The Effect of Street Network Topological Structure on the Measurement of Residential Segregation.....*Elijah Knaap, University of California - Riverside; Sergio Rey, San Diego State University

**Discussants:**

- Elijah Knaap, University of California - Riverside
- Camila Alvayay Torrejon, Michigan State University
- Mitchell Livy, California State University - Fullerton
- Jeffrey Zax, University of Colorado - Boulder

**8. Regional/Rural Development I - Rural Health Disparities [Formal Paper Session]  
Thursday | 8:00 am-10:00 am | Symphonie 3A**

**Organizers:** Sarah Low, University of Illinois at Urbana-Champaign; Stephan Weiler, Colorado State University

**President:** Kelsey Conley, U.S. Department of Agriculture

- *The Growing Rural Health Disadvantage: The Importance of Changes in Health Behavior.....*David McGranahan, U.S. Department of Agriculture; Elizabeth Dobis, USDA Economic Research Service
- *Rural Labor Market Consequences of Rising Prime-Age Mortality.....*Sarah Low, University of Illinois at Urbana-Champaign; Mark White, University of Missouri; Andrew Van Leuven, Oklahoma State University
- *Changing Markets for Pharmacies Across the Rural-Urban Divide.....*Melissa Kono, University of Wisconsin - Madison; Steven Deller, University of Wisconsin - Madison
- *Changes in Rural Health Care Access, 2000-18.....*Elizabeth Dobis, USDA Economic Research Service
- *Minding the Gap: Decomposing Rural-Urban Differences in Prime Working Age Natural Cause Mortality.....*Kelsey Conley, U.S. Department of Agriculture

**Discussants:**

- Kelsey Conley, U.S. Department of Agriculture
- Elizabeth Dobis, USDA Economic Research Service
- David McGranahan, U.S. Department of Agriculture
- Sarah Low, University of Illinois at Urbana-Champaign
- Melissa Kono, University of Wisconsin - Madison

**9. Climate Change I: Perception, Behavior, & Policy [Formal Paper Session]**

**Thursday | 8:00 am-10:00 am | Symphonie 4A**

**President:** Amit Batabyal, Rochester Institute of Technology

- *Peer Effects on Climate Change Beliefs.....*Xialing Zhao, Pennsylvania State University; Linlin Fan, Pennsylvania State University; Yilan Xu, University of Illinois - Urbana-Champaign
- *Just Clean Air.....*Gina Yeonkyeong Park, Cornell University
- *How Climate Change Affects the Ganges and Water Pollution by Tanneries in Kanpur.....*Amit Batabyal, Rochester Institute of Technology; Karima Kourtit, Open University, The Netherlands; Peter Nijkamp, Open University, Heerlen, The Netherlands

**Discussants:**

- Amit Batabyal, Rochester Institute of Technology

- Yilan Xu, University of Illinois - Urbana-Champaign
- Gina Yeonkyeong Park, Cornell University

**10. Rural Innovation from Three Perspectives: Case Study, Microdata, and Meso-level [Special Session]  
Thursday | 8:00 am-10:00 am | Soprano A**

**Organizer:** Timothy Wojan, National Science Foundation

**Presider:** Stephan Goetz, Pennsylvania State University

- *Innovation in Rural Areas: Examples from Canada and the United States.....*David Freshwater, OECD
- *Is User Entrepreneurship More Inclusive Entrepreneurship? Evidence from Two Micro Datasets.....*Luyi Han, Pennsylvania State University; Zheng Tian, Pennsylvania State University; Timothy Wojan, National Science Foundation; Anil Rupasingha, Economic Research Service; Stephan Goetz, Pennsylvania State University
- *Effects of Cloud Services Adoption on Innovation: Evidence from the Annual Business Survey.....*Luyi Han, Pennsylvania State University; Timothy Wojan, National Science Foundation; Stephan Goetz, Pennsylvania State University
- *SAIRE sans Satire? The Promise and Perils of Small Area Innovation Rate Estimation.....*Zheng Tian, Pennsylvania State University; Luyi Han, Pennsylvania State University; Timothy Wojan, National Science Foundation; Stephan Goetz, Pennsylvania State University

Discussant:

☒ Brian Whitacre, Oklahoma State University;

**11. Regional Development I [Special Session]  
Thursday | 8:00 am-10:00 am | Soprano C**

**Presider:** Roberto Dellisanti, Politecnico di Milano

- *Convergence or Divergence? Analysis of Regional Economic Disparities in Central China from the Perspective of Space.....*Yongming Huang, Wuhan University; Yuhang Xiang, Wuhan University; Xue Dong, Wuhan University; Yanan Zhang, Wuhan University; Xin Li, Wuhan University
- *Do People Follow Jobs or Do Jobs Follow People? A China-based Study.....*Wenzheng Li, Cornell University; John Carruthers, Cornell University
- *RELIGIOUS DIVERSITY AND ECONOMIC PERFORMANCE IN BRAZILIAN MUNICIPALITIES: Analysis based on Weber's work ethics.....*Suzana Quinet Bastos, Federal University of Juiz de Fora; Sandro de Freitas Ferreira, Federal University of Juiz de Fora; Gabryella Magalhães Cerqueira Silva, Federal University of Juiz de Fora

- *CCIs and local economic growth nexus: Territorial mediating factors.....*Roberto Dellisanti, Politecnico di Milano

**Discussants:**

- Roberto Dellisanti, Politecnico di Milano
- Yuhang Xiang, Wuhan University
- Wenzheng Li, Cornell University
- Suzana Quinet Bastos, Federal University of Juiz de Fora

**12. COVID-19 pandemic, transportation, and impacts on urban areas. [Special Session]  
Thursday | 8:00 am-10:00 am | Symphonie 2A**

**Organizers:** Dimitra Pyrialakou, West Virginia University; Lisa Lorena Losada Rojas, University of Toronto; Eleni Bardaka, North Carolina State University

**Presiders:** Eleni Bardaka, North Carolina State University; Lisa Lorena Losada Rojas, University of Toronto;

- *Could urban form moderate mental distress due to the COVID-19 pandemic? Evidence from Jakarta, Indonesia.....*Usep Nugraha, Universitas Indonesia; Budy P. Resosudarmo, Australian National University; Rus'an Nasrudin, Universitas Indonesia
- *Examining COVID-19 Vaccine Access Profiles through Spatial Microsimulation and Activity Allocation.....*Joseph Tuccillo, Oak Ridge National Laboratory; James Gaboardi, Oak Ridge National Laboratory
- *COVID-19 and Commuting: Evidence from California's San Francisco Bay and Central Valley Regions.....*Bonnie Wang, University of Southern California; Seva Rodnyansky, Occidental College; Marlon Boarnet, University of Southern California; Andre Comandon, University of Southern California
- *Travel Disparity in the Bipartite Commute Network during the COVID-19 Pandemic: A case of Seoul.....*Jaegon Lee, Seoul National University; Jungyul Sohn, Seoul National University

**Discussants:**

- Joseph Tuccillo, Oak Ridge National Laboratory
- Bonnie Wang, University of Southern California
- Jaegon Lee, Seoul National University
- Usep Nugraha, Universitas Indonesia

**Panelists:**

- Usep Nugraha, Universitas Indonesia
- Joseph Tuccillo, Oak Ridge National Laboratory

- Bonnie Wang, University of Southern California
- Jaegeon Lee, Seoul National University

**NARSC Council Meeting (by invitation only) [Business Meeting]**  
**Thursday | 8:00 am-10:00 am | Ovation**

**Coffee [Informal meeting]**  
**Thursday | 10:00 am-10:30 am | Grand Salon Opera Foyer**

**13. NARSC Presidential Lecture [Special Session]**  
**Thursday | 10:30 am-12:30 pm | Grand Salon Opera**

**Organizer:** John Sporing, NARSC

**Presider:** John Sporing, NARSC

- *Assessing Older Adult Mobility Using Wearable Technology.....*Bruce Newbold, McMaster University

**14. Housing II: Residential Property Values [Formal Paper Session]**  
**Thursday | 1:30 pm-3:30 pm | Soprano B**

**Presider:** Mitchell Livy, California State University - Fullerton

- *Do residential property tax incentive programs raise home prices and contribute to gentrification? Quasi-experimental evidence from Columbus, Ohio.....*Nick Messenger, Ohio State University
- *Did Unilateral Divorce raise house prices in Europe?.....*Rafael González-Val, Universidad de Zaragoza; Miriam Marcén, Universidad de Zaragoza
- *Measuring the Value of Urban Forestry in the Housing Market in Seattle, WA.....*Hanxue Wei, Cornell University
- *Who values urban open spaces? Investigating heterogeneity in capitalization of open space by housing type, open space class, and demographics.....*Mitchell Livy, California State University - Fullerton; Liqing Li, California State University - Fullerton

**Discussants:**

- Mitchell Livy, California State University - Fullerton
- Nick Messenger, Ohio State University
- Rafael González-Val, Universidad de Zaragoza
- Hanxue Wei, Cornell University

## 15. Regional Development II (Session Sponsored by the International Journal of Urban Sciences)

[Formal Paper Session]

Thursday | 1:30 pm-3:30 pm | Soprano C

**Presider:** Andrea Ascani, Gran Sasso Science Institute (GSSI)

- *Capital Shocks and the Effects of the Global Financial Crisis in European Regions and Cities.....*Michiel Daams, University of Groningen; Philip McCann, University of Manchester; Paolo Veneri, OECD; Richard Barkham, CBRE Global Investors
- *Spatial Spillovers and Displacement Effects in Cohesion Policy: Evidence from Italian NUTS-3 regions.....*Debora Gambina, University of Palermo; Fabio Mazzola, University of Palermo
- *Digital transformations, global value chains, and regional growth in Europe: The MASST5 model.....*Roberta Capello, Politecnico di Milano; Andrea Caragliu, Politecnico di Milano
- *Networked FDI, spillovers and regional innovation capacity.....*Andrea Ascani, Gran Sasso Science Institute (GSSI); Luca Bettarelli, University of Milan Bicocca; Laura Resmini, University of Milan Bicocca

**Discussants:**

- Andrea Ascani, Gran Sasso Science Institute (GSSI)
- Michiel Daams, University of Groningen
- Fabio Mazzola, University of Palermo
- Andrea Caragliu, Politecnico di Milano

## 16. Natural Resources [Formal Paper Session]

Thursday | 1:30 pm-3:30 pm | Symphonie 1

**Presider:** Mark Thissen, Netherlands Environmental Assessment Agency

- *The role of the resource windfalls in welfare from the spatial economy.....*Mauricio Oyarzo, Universidad de Concepción; Dusan Paredes, Universidad Catolica del Norte
- *The impact of the Mariana and Brumadinho dam disasters on credit constraint.....*Wilson Neto, UFJF; Flavia Chein, Federal University of Juiz de Fora
- *Analysis of local energy supply and demand for woody biomass in Japanese municipalities.....*Kazuyoshi Nemoto, Tohoku University; Toshihiko Nakata, Tohoku University
- *Regional competitive opportunities and threats of fossil fuel cost changes and the role of decarbonization.....*Sacha den Nijs, Free University, Amsterdam; Mark Thissen, Netherlands Environmental Assessment Agency

**Discussants:**



- Mark Thissen, Netherlands Environmental Assessment Agency
- Dusan Paredes, Universidad Catolica del Norte
- Flavia Chein, Federal University of Juiz de Fora
- Kazuyoshi Nemoto, Tohoku University

### **17. Regional/Rural Development II - Rural Resilience [Formal Paper Session]**

**Thursday | 1:30 pm-3:30 pm | Symphonie 3A**

**Organizers:** Sarah Low, University of Illinois at Urbana-Champaign; Stephan Weiler, Colorado State University

**President:** Tomás Lopes Cavalheiro Ponce Dentinho, Universidade dos Açores

- *Learning about rural community resilience and capacity from municipal actions during the COVID-19 pandemic.....*Kathleen Bell, University of Maine; Vanessa Levesque, University of Southern Maine; Eileen Johnson, Bowdoin College
- *Exploring a new tourism asset in the context of rural economic development; the case of Fishers Peak State Park.....*Skylar Schuck, Colorado State University
- *Mapping Environmental Hazards Adaptation Capacity and Vulnerability in Timor Leste.....*Tomás Lopes Cavalheiro Ponce Dentinho, Universidade dos Açores; Karina Sass, Universidade dos Açores; Fabiana Issler, EBD Global Optimum

#### **Discussants:**

- Tomás Lopes Cavalheiro Ponce Dentinho, Universidade dos Açores
- Kathleen Bell, University of Maine
- Skylar Schuck, Colorado State University

### **18. Diversity, Inclusion, Intolerance, & Protest [Formal Paper Session]**

**Thursday | 1:30 pm-3:30 pm | Symphonie 4A**

**President:** Laurie Schintler, George Mason University

- *Knocking on Hell's door: dismantling hate with cultural consumption.....*daria denti, Gran Sasso Science Institute
- *The perception of human security and human rights by Mexiquen's migrants in Canada participating in the SAWP: an exploratory study 2020.....*Lidia Carvajal, Universidad Autonoma del Estado de Mexico; Román Sánchez, Universidad Autónoma del Estado de México; Oswaldo Garcia-Salgado, Universidad Autonoma del Estado de Mexico
- *Geography of contestation: a study on the Yellow Vests movement and the rise of populism in France.....*Torre Andre, University Paris Saclay; Sébastien Bourdin, E.M Normandie

- *Diversity and Inclusion in Regional Science Participation: A Bibliometric Perspective.....*Laurie Schintler, George Mason University; Chen Zhenhua, Ohio State University

**Discussants:**

- Laurie Schintler, George Mason University
- daria denti, Gran Sasso Science Institute
- Lidia Carvajal, Universidad Autonoma del Estado de Mexico
- Torre Andre, University Paris Saclay

**19. Labor & Firm Productivity [Formal Paper Session]**

**Thursday | 1:30 pm-3:30 pm | Symphonie 4B**

**President:** Katarzyna Kopczewska, University of Warsaw

- *Can't Stand the Heat: Climate Stress and Labor Productivity in 16 Latin American and Caribbean Countries.....*Luis Quintero, Johns Hopkins University; Hanchen Jiang, University of North Texas
- *Quantification of non-linear effects in agglomeration economies for transport appraisals.....*Anupriya -, Imperial College London; Daniel Graham, Imperial College London; Prateek Bansal, National University of Singapore
- *The spatial dimension of aging and growth.....*Rosella Nicolini, Universitat Autònoma de Barcelona; José Luis Roig Sabaté, Universitat Autònoma de Barcelona
- *Economies of density vs economies of agglomeration – supplementing matching, learning and sharing with attracting mechanism.....*Katarzyna Kopczewska, University of Warsaw; Mateusz Kopyt, University of Warsaw

**Discussants:**

- Katarzyna Kopczewska, University of Warsaw
- Luis Quintero, Johns Hopkins University
- Anupriya -, Imperial College London
- Rosella Nicolini, Universitat Autònoma de Barcelona

**20. Access to opportunities and amenities [Special Session]**

**Thursday | 1:30 pm-3:30 pm | Symphonie 2A**

**Organizers:** Lisa Lorena Losada Rojas, University of Toronto; Dimitra Pyrialakou, West Virginia University; Eleni Bardaka, North Carolina State University

**President:** Yue Ke, Argonne National Laboratory

- *A historical collection of impedance functions for active travel accessibility analysis in Canada.....*Mahdis Moghadasi, McMaster University; Antonio Paez, McMaster University

- *Older Drivers in the Rural West*.....Yue Ke, Argonne National Laboratory; Brigitte Waldorf, Purdue University
- *A renewed argument for walkable school accessibility*.....Anastasia Soukhov, McMaster University; Antonio Paez, McMaster University; Christopher Higgins, University of Toronto - Scarborough; Moataz Mohamed, McMaster University
- *Cities in shape: Assessing the impact of urban morphology on accessibility to urban amenities*.....Clara Peiret-Garcia, Newcastle University

**Discussants:**

- Mahdis Moghadasi, McMaster University
- Yue Ke, Argonne National Laboratory
- Anastasia Soukhov, McMaster University
- Clara Peiret-Garcia, Newcastle University

**Panelists:**

- Yue Ke, Argonne National Laboratory
- Anastasia Soukhov, McMaster University
- Clara Peiret-Garcia, Newcastle University
- Mahdis Moghadasi, McMaster University

**Coffee [Informal meeting]**

**Thursday | 3:30 pm-4:00 pm | Grand Salon Opera Foyer**

**21. Work Location & Commuting [Formal Paper Session]**

**Thursday | 4:00 pm-6:00 pm | Soprano A**

**Presenter:** Diego Andres Cardenas Morales, Laval University

- *The work-from-home revolution and the performance of cities*.....Steven Bond-Smith, University of Hawaii - Manoa; Philip McCann, University of Manchester
- *The Problem Has Existed over Endless Years: Racialized Difference in Commuting, 1980–2019*.....devin michelle bunten, Massachusetts Institute of Technology; Ellen Fu, University of Pennsylvania; Lyndsey Rolheiser, University of Connecticut; Christopher Severen, Federal Reserve Bank of Philadelphia
- *What future for office space? An analysis of the relocation of knowledge-intensive business services in the Montréal metropolitan area*.....Diego Andres Cardenas Morales, Laval University; Jean Dube, Université Laval; Richard Shearmur, McGill University

- *Remote Work and Locational Preferences - The Case of Italy.....*Thea Jansen, Gran Sasso Science Institute (GSSI); Andrea Ascani, Gran Sasso Science Institute (GSSI); Alessandra Faggian, Gran Sasso Science Institute (GSSI); Alessandro Palma, Gran Sasso Science Institute (GSSI)
- *Who continues to work from home and where are they?.....*Ting Zhang, University of Baltimore

**Discussants:**

- Ting Zhang, University of Baltimore
- Steven Bond-Smith, University of Hawaii - Manoa
- Christopher Severen, Federal Reserve Bank of Philadelphia
- Diego Andres Cardenas Morales, Laval University
- Thea Jansen, Gran Sasso Science Institute (GSSI)

**22. Housing III: Shocking Events and the Housing Market [Formal Paper Session]**

**Thursday | 4:00 pm-6:00 pm | Soprano B**

**President:** Juan Sayago, Universidad Icesi

- .....Sowon Kim, Ohio State University; Yixuan Wang, Ohio State University; Seung-Hun Chung, Ohio State University
- *Housing Market Dynamics Following A Major Hurricane.....*Hoanh Le, University of Houston
- *Assessing the impact of Red Tide Events on property values in Southwest Florida.....*Bijeta Bijen Saha, University of Florida; Xiaohui Qiao, University of Florida; Christa Court, University of Florida; Olesya Savchenko, University of Florida
- *Housing prices and strikes: Evidence from Cali, Colombia.....*Jhon James Mora, Universidad Icesi; Juan Sayago, Universidad Icesi

**Discussants:**

- Juan Sayago, Universidad Icesi
- Sowon Kim, Ohio State University
- Hoanh Le, University of Houston
- Bijeta Bijen Saha, University of Florida

**23. Regional Development III [Formal Paper Session]**

**Thursday | 4:00 pm-6:00 pm | Soprano C**

**President:** Hector Nuñez, Banco de México

- *The Economic Resilience of Construction Industries in U.S States.....*Soomi Lee, University of La Verne; Frank Manzo IV, Illinois Economic Policy Institute

- *Political Competition and Industrial Location during the Economic Shift in Indonesia.....Khoirunurrofik Khoirunurrofik, University of Indonesia; Alfred M. Wu, National University of Singapore*
- *Effect of greenhouse gas emissions on the regional technical efficiency of the manufacturing sector in Mexico.....Hector Nuñez, Banco de México*
- *Persistence and change of regional entrepreneurial activity in U.S. cities.....Haifeng Qian, University of Iowa*
- *"Hybrid urbanization", labor market extensions and potentials for rural development.....Hans Westlund, KTH Royal Institute of Technology*

**Discussants:**

- Hans Westlund, KTH Royal Institute of Technology
- Soomi Lee, University of La Verne
- Khoirunurrofik Khoirunurrofik, University of Indonesia
- Hector Nuñez, Banco de México
- Haifeng Qian, University of Iowa

**24. Fertility: Trends, Decision Making & Impacts [Formal Paper Session]**

**Thursday | 4:00 pm-6:00 pm | Symphonie 1**

**President:** Flavia Chein, Federal University of Juiz de Fora

- *Fertility Divergence across Large and Small Areas.....Xiaoyin Li, Iowa State University; John Winters, Iowa State University*
- *Regional Childcare Policy, Urbanization, and Population Dynamics.....Hiroyuki Hashimoto, University of Hyogo; Tohru Naito, Doshisha University*
- *Brumadinho Dam failure, the selection mechanism in utero and effects on human capital.....Igor Vieira Procópio, Federal University of Juiz de Fora; Flavia Chein, Federal University of Juiz de Fora; Cristine Pinto, Insper*

**Discussants:**

- Flavia Chein, Federal University of Juiz de Fora
- John Winters, Iowa State University
- Michael Betz, Ohio State University
- Tohru Naito, Doshisha University

**25. Freight & Trade [Formal Paper Session]**

**Thursday | 4:00 pm-6:00 pm | Symphonie 2A**

**President:** Santiago Pinto, Federal Reserve Bank of Richmond

- *The impact of temporal and geographical factors on shippers batch size decisions : a micro-econometrical analysis using data collected over three periods of time.....*el mehdi aboukacem, Gustave Eiffel University
- *Distance Friction and the Hub-and-Spoke System in the Global Freight Transportation.....*Paul Jung, University of North Carolina - Charlotte; Jean-Claude Thill, University of North Carolina - Charlotte
- *Import competition and domestic transport costs.....*Andrea Caragliu, Politecnico di Milano; Michiel Gerritse, Erasmus University Rotterdam
- *It's the Exporters, Stupid! Local Interests and the Political Economy of Trade.....*Santiago Pinto, Federal Reserve Bank of Richmond; Pablo Pinto, University of Houston; Kishore Gawande, University of Texas - Austin

**Discussants:**

- Santiago Pinto, Federal Reserve Bank of Richmond
- el mehdi aboukacem, Gustave Eiffel University
- Paul Jung, University of North Carolina - Charlotte
- Andrea Caragliu, Politecnico di Milano

**26. Regional/Rural Development III - Manufacturing & Occupation [Formal Paper Session]  
Thursday | 4:00 pm-6:00 pm | Symphonie 3A**

**Organizers:** Sarah Low, University of Illinois at Urbana-Champaign; Stephan Weiler, Colorado State University

**President:** Timothy F. Slaper, Indiana University

- *Identifying Occupational Gaps by Region: Using FDI and Occupation Co-location as Warning Signs.....*Timothy F. Slaper, Indiana University
- *The Impact of Rurality, Age, and Occupation on the Gender Wage Gap in the U.S.....*Ayoung Kim, Mississippi State University; Brigitte Waldorf, Purdue University
- *Regional Workforce Training as a Common Pool Resource: Evidence from Ohio's Manufacturing Sector.....*Edward Hill, Ohio State University; Ken Poland, Ohio State University

**Discussants:**

- Edward Hill, Ohio State University
- Timothy F. Slaper, Indiana University
- Ayoung Kim, Mississippi State University

## **27. Transportation: Infrastructure & Connectivity [Formal Paper Session]**

**Thursday | 4:00 pm-6:00 pm | Symphonie 4A**

**President:** Daniel Hörcher, Imperial College London

- *Highway Congestion in Britain: The effect of transportation improvements.....*Miquel-Angel Garcia-Lopez, Universitat Autònoma de Barcelona; Luz Yadira Gomez-Hernandez, Universitat Autònoma de Barcelona; Rosa Sanchis-Guarner H, University of Barcelona
- *Analysis of Public-Private Partnership and Conventional Projects in Surface Transportation Infrastructure on Long-term Operations and Maintenance (O&M).....*Marina Manganaris, George Mason University; Jonathan Gifford, George Mason University
- *Road stimulus investments in rural China and the uneven path to economic recovery.....*Anthony Howell, Arizona State University
- *Optimal intercity connectivity: A general equilibrium model with explicit leisure and business travel markets.....*Daniel Hörcher, Imperial College London; Daniel Graham, Imperial College London

**Discussants:**

- Daniel Hörcher, Imperial College London
- Luz Yadira Gomez-Hernandez, Universitat Autònoma de Barcelona
- Marina Manganaris, George Mason University
- Anthony Howell, Arizona State University

## **28. Tax Policies & Practices [Formal Paper Session]**

**Thursday | 4:00 pm-6:00 pm | Symphonie 4B**

**President:** Elham Erfanian, Ohio University

- *Temporal versus Spatial Specificity in Tax Incentives Program Evaluations: The Case of Wisconsin's Enterprise Zone Program.....*Richard Funderburg, University of Illinois Springfield
- *The spatial effects of selected hydrocarbon-focused environmental policies in Canada.....*HAKAN ANDIC, Statistics Canada
- *Fuel Economy Standards and Public Transport.....*Julius Berger, ifo Institute; Waldemar Marz, ifo Institute
- *Evaluating the impact of power plant closures on educational outcomes in Ohio.....*Elham Erfanian, Ohio University; Fahad Alzahrani, King Faisal University; G. Jason Jolley, Ohio University

**Discussants:**

- Elham Erfanian, Ohio University
- Richard Funderburg, University of Illinois Springfield
- HAKAN ANDIC, Statistics Canada
- Waldemar Marz, ifo Institute

## **29. The William Alonso Memorial Prize Lecture [Special Session]**

**Thursday | 7:00 pm-8:00 pm | Grand Salon Opera**

**Organizer:** John Sporing, NARSC

**President:** Janet Kohlhase, University of Houston

- *Cultural Heritage and Local Development: A Complex Relationship.....*Silvia Cerisola, Politecnico di Milano

## **NARSC Thursday Evening Reception [Informal meeting]**

**Thursday | 8:00 pm-9:00 pm | Grand Salon Opera Foyer**

## **Coffee [Informal meeting]**

**Friday | 7:30 am-8:30 am | Grand Salon Opera Foyer**

## **Registration & Exhibits [Registration and Exhibits]**

**Friday | 7:30 am-5:30 pm | Grand-Salon Opera Foyer**

## **30. Retail: Challenges & Changes [Formal Paper Session]**

**Friday | 8:00 am-10:00 am | Maestro**

**President:** Megan Bailey, University of Maine

- *The Effect of Street Connectivity on Sales Revenue of Retail Area: Focusing on Major Retail Areas in Seoul, South Korea.....*Ahyoung Chang, University of Seoul; Myounggu Kang, University of Seoul
- *Commerce and e-commerce in the face of crisis: Urban retail at a crossroad?.....*Dalit Harel, The Hebrew University of Jerusalem; Sigal Kaplan, The Hebrew University of Jerusalem; Gillad Rosen, The Hebrew University of Jerusalem
- *Shopping Streets, Regional Malls, and Big-box Stores: Shopping Destination Choice by Retail Destination Type in the Montreal Metropolitan Area, 2003–2018.....*Cédric Brunelle, INRS-UCS; Roman Brugières, ENSAI; Alex Rodriguez-Campbell, Laval University; Jean Dube, Université Laval; Nicolas Devaux, Université du Québec à Rimouski
- *Changes in Trade Area Capture and Pull Factors Associated with U.S. Core-Based Metropolitan Statistical Areas, 2002 - 2017.....*Megan Bailey, University of Maine; Andrew Crawley, University of Maine

**Discussants:**



- Megan Bailey, University of Maine
- Ahyoung Chang, University of Seoul
- Dalit Harel, The Hebrew University of Jerusalem
- Cédric Brunelle, INRS-UCS

### **31. Climate Change II: Impacts and Adaptation [Formal Paper Session]**

**Friday | 8:00 am-10:00 am | Soprano B**

**President:** Yilan Xu, University of Illinois - Urbana-Champaign

- *Climate Migration in the Face of Armed Conflict: Reflections on the Role of Adaptation in Environmental Security.....*Hyun Kim, Chungnam National University
- *Regional effects of climate change.....*Luca Bettarelli, University of Milan Bicocca; Davide Furceri, International Monetary Fund; Fabio Mazzola, University of Palermo; Pietro Pizzuto, University of Palermo
- *Does Climate Change News Inform Flood Insurance Take-up?.....*Yi Huang, Nanjing Audit University; Yilan Xu, University of Illinois - Urbana-Champaign

**Discussants:**

- Yilan Xu, University of Illinois - Urbana-Champaign
- Hyun Kim, Chungnam National University
- Fabio Mazzola, University of Palermo

### **32. Perspectives on GeoComputation Approaches for Urban and Regional Systems I [Formal Paper Session]**

**Friday | 8:00 am-10:00 am | Symphonie 1**

**Organizers:** Liliana Perez, Montreal University; Suzana Dragicevic, Simon Fraser University

**Presiders:** Liliana Perez, Montreal University; Emma Von Hoene, George Mason University; Suzana Dragicevic, Simon Fraser University;

- *Improving ABM simulations of Mobility using Cost surfaces, Behavioural and Visual models.....*Raja Sengupta, McGill University
- *Network and ABM models of SARS-CoV-2.....*Kinda Al Sayed, Carleton University; Dipto Sarkar, Carleton University; Paul Holloway, University College Cork
- *Integrating Behavioral Theories and Agent-based Models of Disease Spread.....*Emma Von Hoene, George Mason University; Taylor Anderson, George Mason University

**Discussants:**

- Emma Von Hoene, George Mason University

- Raja Sengupta, McGill University
- Kinda Al Sayed, Carleton University

### **33. Methods in Regional Science I [Formal Paper Session]**

**Friday | 8:00 am-10:00 am | Symphonie 2A**

**Presider:** Ge Lin, Hong Kong University of Science and Technology

- *Robust tools in spatial econometrics.....*giuseppe arbia, Catholic University; vincenzo nardelli, bicocca university of milan; elena semerikova, higher school of economics moskov
- *Linking Spatial Associations and Permutation Tests to Statistical Models.....*Tong Zhang, Purdue University; Ge Lin, Hong Kong University of Science and Technology
- *The economic and demographic impacts of Covid-19 on Portuguese municipalities.....*Karina Sass, Universidade dos Açores; Tomás Lopes Cavalheiro Ponce Dentinho, Universidade dos Açores

**Discussants:**

- Karina Sass, Universidade dos Açores
- giuseppe arbia, Catholic University
- Ge Lin, Hong Kong University of Science and Technology

### **34. Regional/Rural Development IV - Windmills & Weed [Formal Paper Session]**

**Friday | 8:00 am-10:00 am | Symphonie 3A**

**Organizers:** Sarah Low, University of Illinois at Urbana-Champaign; Stephan Weiler, Colorado State University

**Presider:** Jason Brown, Federal Reserve Bank of Kansas City

- *Rich region Poor people dichotomy: Measuring regional wealth of energy-rich rural counties of West Virginia.....*Hodjat Ghadimi, West Virginia University
- *The Computable General Equilibrium Model on Applying for Production Tax Credit in Renewable Energy Development in the Eastern Part of Indonesia.....*Simon Hutabarat, Colorado State University
- *Household energy transition in rural China: trends and challenges.....*Xiang Zhang, McGill University; Chris Barrington-Leigh, McGill University; Brian Robinson, McGill University
- *A 'Significant Crisis and Financial Windfall': The Proliferation of Medical Marijuana in Rural Oklahoma.....*Brian Whitacre, Oklahoma State University; Andrew Van Leuven, Oklahoma State University
- *The Effects of Recreational Marijuana Legalization on State Economies.....*Jason Brown, Federal Reserve Bank of Kansas City; Elicor Cohen, Federal Reserve Bank of Kansas City

**Discussants:**

- Jason Brown, Federal Reserve Bank of Kansas City
- Hodjat Ghadimi, West Virginia University
- Simon Hutabarat, Colorado State University
- Xiang Zhang, McGill University
- Andrew Van Leuven, Oklahoma State University

**35. Left Behind Places & People I [Formal Paper Session]**

**Friday | 8:00 am-10:00 am | Symphonie 4A**

**Presider:** Steven Bond-Smith, University of Hawaii - Manoa

- *The more labelled, the more resilient? The role of place-branding intangibles in Italian peripheral areas.....*Fabiano Compagnucci, Gran Sasso Science Institute; Alessandra Faggian, Gran Sasso Science Institute (GSSI); Giulia Urso, Gran Sasso Science Institute
- *Seeing Social Disconnection: Using Twitter Data to Understand Left Behind Places.....*Rachael Sanderson, Newcastle University; Rachel Franklin, Newcastle University; Danny MacKinnon, Newcastle University; Joe Matthews, Newcastle University
- *Regional diagnostics and local policy prescriptions.....*Steven Bond-Smith, University of Hawaii - Manoa; Philip McCann, University of Manchester

**Discussants:**

- Steven Bond-Smith, University of Hawaii - Manoa
- Giulia Urso, Gran Sasso Science Institute
- Rachael Sanderson, Newcastle University

**36. Amenities & Happiness [Formal Paper Session]**

**Friday | 8:00 am-10:00 am | Symphonie 4B**

**Presider:** Sowon Kim, Ohio State University

- *The Value of Historic Districts in Georgia.....*Carlianne Patrick, Georgia State University
- *Amenities, urban consumption and tourism.....*Miquel-Angel Garcia-Lopez, Universitat Autònoma Barcelona; Giacomo Rosso, University of Turin & Collegio Carlo Alberto
- *What makes a happy island?.....*Dimitris Ballas, Groningen University
- *The Impact of Remote Work on Natural Amenity Values in Regional Housing Markets.....*Khyati Malik, Ohio State University; Sowon Kim, Ohio State University; Brian Cultice, Ohio State University

**Discussants:**

- Sowon Kim, Ohio State University
- Carlianne Patrick, Georgia State University
- Miquel-Angel Garcia-Lopez, Universitat Autònoma de Barcelona
- Dimitris Ballas, Groningen University

**37. Location and Spatial Analysis I [Special Session]**

**Friday | 8:00 am-10:00 am | Soprano A**

**Organizers:** Alan Murray, University of California - Santa Barbara; Ran Wei, University of California - Riverside

**President:** Ran Wei, University of California - Riverside

- *Locational Analysis and Open-Source Spatial Optimization.....*Jiwon Baik, University of California - Santa Barbara; Alan Murray, University of California - Santa Barbara
- *A dynamic equilibrium model of commuting, residential and work location choices.....*Fedor Iskhakov, Australian National University; Christian Langholz Carstensen, University of Copenhagen; Bertel Schjerning, University of Copenhagen; John Rust, Georgetown University; Maria Juul Hansen, University of Copenhagen
- *Spatial Income Inequality in the United States.....*Francisco Castellanos-Sosa, University of Texas - Austin
- *Franchise distribution location modeling with a distance restriction between franchisees for the convenience store chain.....*Gunhak Lee, Seoul National University

**Discussants:**

- Huanfa Chen, University College London
- Vanessa Echeverri Figueroa, University of California - Santa Barbara
- Carlos Baez, University of California - Santa Barbara
- B. Amelia Pludow, UC Santa Barbara

**38. Spatial Corometrics I: Amenities, Recreation & Tourism [Special Session]**

**Friday | 8:00 am-10:00 am | Soprano C**

**Organizers:** Peter Nijkamp, Open University, Heerlen, The Netherlands; Karima Kourtiti, Open University, The Netherlands

**President:** Peter Batey, University of Liverpool

- *The Geography of Social Media Platform Attention for Tourist Attractions - Spatial Data Analytics of Hot Spots in China.....*Peter Nijkamp, Open University, Heerlen, The Netherlands

- *Discussion on the tourism vulnerability under the effects of Covid-19 pandemic : Taking Taiwan and its offshore islands as an example.....*CHI-TUNG HUNG, MING CHUAN UNIVERSITY; WEN-YEN LIN, MING CHUAN UNIVERSITY
- *A Day at the Park: How COVID-19 Impacted Park Amenity Valuation.....*Hongxi Zhao, Ohio State University; H. Allen Klaiber, Ohio State University
- *Helicopter View on Post-Corona Space Economy: Modeling Tourism Impacts.....*Karima Kourtit, Open University, The Netherlands; Jaewon Lim, University of Nevada - Las Vegas; Peter Nijkamp, Open University, Heerlen, The Netherlands

### **39. RSAI Council Meeting (by invitation only) [Business Meeting]**

**Friday | 8:00 am-10:00 am | Ovation**

**Organizer:** Andrea Caragliu, Politecnico di Milano

**President:** Eduardo Haddad, University of Sao Paulo

**Coffee [Informal meeting]**

**Friday | 10:00 am-10:30 am | Grand Salon Opera Foyer**

### **40. Using Regional Science to Understand the Past [Formal Paper Session]**

**Friday | 10:30 am-12:30 pm | Maestro**

**President:** Rafael González-Val, Universidad de Zaragoza

- *Regional Science Meets the Past: Space and Money Circulation in Ancient Rome.....*Eduardo Haddad, University of Sao Paulo; Inacio Araujo, University of Sao Paulo
- *Occupation segregation in Stockholm then and now.....*Kevin Credit, Maynooth University; Orsa Kekezi, Stockholm University; Charlotta Mellander, Jonkoping International Business School
- *War and city size: The asymmetric and short-lived effects of the Spanish Civil War.....*Rafael González-Val, Universidad de Zaragoza; Javier Silvestre, Universidad de Zaragoza
- *Local public finances in Colombia: a long-term vision, 1923 - 2020.....*Jaime Bonet, Banco de la República; Javier Perez, Banco de la Republica (The Central Bank of Colombia); Diana Ricciulli, University of British Columbia

**Discussants:**

- Rafael González-Val, Universidad de Zaragoza
- Eduardo Haddad, University of Sao Paulo
- Orsa Kekezi, Stockholm University

### **41. Roads and Travel [Formal Paper Session]**

**Friday | 10:30 am-12:30 pm | Soprano B**

**Presider:** Elizabeth Dobis, USDA Economic Research Service

- *A Tale of Spatial Cities: How do Roads Affect the Size of Urbanized Areas?.....*Yixuan Wang, Ohio State University
- *A methodology for optimal road space allocation between modes.....*David Murray, Ecole Polytechnique; Catherine Morency, Ecole Polytechnique
- *Automated analysis of on-street parking.....*Jean-Simon Bourdeau, Polytechnique Montréal; Catherine Morency, Ecole Polytechnique
- *Difficult Terrain and Access to Urban Areas.....*Elizabeth Dobis, USDA Economic Research Service; John Cromartie, USDA Economic Research Service; Ryan Williams, USDA Economic Research Service; Kyle Reed, USDA Economic Research Service

**Discussants:**

- Elizabeth Dobis, USDA Economic Research Service
- Yixuan Wang, Ohio State University
- David Murray, Ecole Polytechnique
- Jean-Simon Bourdeau, Polytechnique Montréal

#### **42. Methods in Regional Science II [Formal Paper Session]**

**Friday | 10:30 am-12:30 pm | Symphonie 2A**

**Presider:** JUNYA FUKUMOTO, Tohoku University

- *Tourism and the Trade in Value-Added: Evidence from Spain.....*Philip Watson, University of Idaho; Antonio Gomez, Universidad Pública de Navarra
- *CGE Study of Hawaiian Minimum Wage Hike: Focus on Data Development.....*Patrick Buckley, Western Washington University
- *Input-Output Model Aggregation Bias in the Context of Detailed Data Imputation.....*Randall Jackson, West Virginia University; Caroline Welter, West Virginia University; Gary Cornwall, BEA
- *Equilibrium evacuation model with the facility capacity constrains.....*JUNYA FUKUMOTO, Tohoku University

**Discussants:**

- JUNYA FUKUMOTO, Tohoku University
- Philip Watson, University of Idaho
- Patrick Buckley, Western Washington University
- Caroline Welter, West Virginia University

**43. Regional/Rural Development V - Childcare & Household Decision Making [Formal Paper Session]  
Friday | 10:30 am-12:30 pm | Symphonie 3A**

**Organizers:** Sarah Low, University of Illinois at Urbana-Champaign; Stephan Weiler, Colorado State University

**President:** Andrew Van Leuven, Oklahoma State University

- *A Competition Conundrum: Are Charter Schools More Exposed to Economic Shocks?.....*Michael Trouw, Colorado State University
- *Access to Childcare and Labor Productivity: Is There a Rural Affect?.....*Steven Deller, University of Wisconsin - Madison; Tessa Conroy, University of Wisconsin - Madison; Jie WU, University of Wisconsin - Madison
- *The Economic Dynamism of Child Care Establishments in the United States.....*Andrew Van Leuven, Oklahoma State University; Tessa Conroy, University of Wisconsin - Madison
- *Household Welfare Effects of ROSCAs in Rural and Urban India.....*Pushkar Maitra, Monash University; Ray Miller, Colorado State University; Ashish Sedai, University of Texas - Arlington

**Discussants:**

- Andrew Van Leuven, Oklahoma State University
- Steven Deller, University of Wisconsin - Madison
- Ray Miller, Colorado State University
- Michael Trouw, Colorado State University

**44. Left Behind Places & People II [Formal Paper Session]  
Friday | 10:30 am-12:30 pm | Symphonie 4A**

**President:** Xin Li, Wuhan University

- *How can innovation network structure empower regional resilience?.....*Yijia Wen, florida state university; Kerry Fang, Florida state university
- *The impact of fair trade in Social and Solidarity Economy Organizations in Ecuador.....*Carolina Guevara Rosero, Escuela Politécnica Nacional; Marcela Guachamín, Escuela Politécnica Nacional; Katherine Monge, Escuela Politécnica Nacional; Henry Yanez, Escuela Politécnica Nacional; Javier Flor, Instituto de Economía Popular y Solidaria
- *NRRP-induced Occupation/Skill Shifts for Romania's NUTS-2 Regions.....*Michael Lahr, Rutgers University; Alexandru Voicu, CUNY - Staten Island
- *Regional Economic Disparities in China : A Spatial Perspective.....*Yongming Huang, Wuhan University; Xin Li, Wuhan University; Yuhang Xiang, Wuhan University

**Discussants:**

- Xin Li, Wuhan University
- Yijia Wen, florida state university
- Carolina Guevara Rosero, Escuela Politécnica Nacional
- Michael Lahr, Rutgers University

#### **45. Changing Travel Patterns [Formal Paper Session]**

**Friday | 10:30 am-12:30 pm | Symphonie 4B**

**President:** Kara Kockelman, University of Texas - Austin

- *Spatiotemporal analysis of public microtransit trip characteristics in North Carolina.....*Subid Ghimire, North Carolina State University; Eleni Bardaka, North Carolina State University
- *Analysis of Household-Firm Spatial Interactions in the Post-Great Recession Labor Market: Determinants of Commuting Patterns Across the Upper Midwest.....*Matthew Kures, University of Wisconsin - Madison
- *SELF-DRIVING VEHICLES' IMPACTS ON AMERICANS' LONG-DISTANCE DOMESTIC TRAVEL CHOICES.....*Fatemeh Fakhrmoosavi, University of Texas - Austin; Priyanka Paithankar, University of Texas - Austin; Kara Kockelman, University of Texas - Austin; Yantao Huang, University of Texas - Austin; Jason Hawkins, University of Nebraska - Lincoln
- *INTERNATIONAL TRAVEL TO AND FROM THE U.S.: DESTINATION AND MODE DECISIONS, DEPARTURE DATES, AND AIRLINE FARES.....*Priyanka Paithankar, University of Texas - Austin; Fatemeh Fakhrmoosavi, University of Texas - Austin; Kara Kockelman, University of Texas - Austin; Kenneth Perrine, University of Texas - Austin

**Discussants:**

- Kara Kockelman, University of Texas - Austin
- Kara Kockelman, University of Texas - Austin
- Subid Ghimire, North Carolina State University
- Matthew Kures, University of Wisconsin - Madison

#### **46. Location and Spatial Analysis II [Special Session]**

**Friday | 10:30 am-12:30 pm | Soprano A**

**Organizers:** Alan Murray, University of California - Santa Barbara; Ran Wei, University of California - Riverside

**President:** Alan Murray, University of California - Santa Barbara

- *The alternatives to formulating classic location problems, part 2: the p-median problem.....*Rick Church, University of California - Santa Barbara



- *ECARBONIZING REGIONAL MULTI-MODAL TRANSPORTATION SYSTEM WITH SHARED ELECTRIC CHARGING HUB.....*Zuzhao Ye, University of California - Riverside; Ran Wei, University of California - Riverside
- *Assessing Computational Performance in Land Allocation Problems with Contiguity Requirements.....*Vanessa Echeverri Figueroa, University of California - Santa Barbara; Alan Murray, University of California - Santa Barbara; Rick Church, University of California - Santa Barbara
- *An efficient solution approach for the p-dispersion problem using spatially informed properties.....*Changwha Oh, University of Tennessee; Hyun Kim, University of Tennessee; Yongwan Chun, University of Texas - Dallas

**Discussants:**

- Ran Wei, University of California - Riverside
- Fedor Iskhakov, Australian National University
- Ran Wei, University of California - Riverside
- Jiwon Baik, University of California - Santa Barbara

**47. Spatial Corometrics II: Labor Market Dynamics [Special Session]**

**Friday | 10:30 am-12:30 pm | Soprano C**

**Organizers:** Peter Nijkamp, Open University, Heerlen, The Netherlands; Karima Kourtit, Open University, The Netherlands

**Presider:** Neil Reid, University of Toledo

- *Labor Market Dynamics' Resilience to the COVID Crisis: A Quebec Regional Analysis.....*Nicolas Devaux, Université du Québec à Rimouski; Jean Dube, Université Laval; Cédric Brunelle, INRS-UCS
- *A dose-response assessment of the labour demand during the pandemic in Italy.....*Fernanda Gutierrez Amaro, Gran Sasso Science Institute; Alessandra Faggian, Gran Sasso Science Institute (GSSI); Andrea Ascani, Gran Sasso Science Institute (GSSI); Alexandra Tsvetkova, OECD; Wessel Vermeulen, OECD
- *Discrimination in Restaurant Patronage at the Onset of the Covid Pandemic.....*Guanting Yi, Ohio State University
- *Regional Economic Impact of the COVID-19 Recession.....*Louis Amato, UNC Charlotte; Richard Cebula, George Mason University; John Connaughton, UNC Charlotte

**48. Perspectives on Geocomputation Approaches for Urban and Regional Systems II [Special Session]**

**Friday | 10:30 am-12:30 pm | Symphonie 1**

**Presider:** Yonghua Huang, East China Normal University

- *GeoSimulation approach for modeling global urban land use change.....*Bright Addae, Simon Fraser University; Suzana Dragicevic, Simon Fraser University
- *Assessing the Impacts of Urban Wetlands Land Cover Changes on Water Provision Ecosystem Services – A geosimulation approach.....*Yenny Cuellar Roncancio, Montreal University; Liliana Perez, Montreal University
- *Evacuation Simulation on Dormitories of Chinese Universities with Considering Retardation Time.....*Yonghua Huang, East China Normal University; Hao Chu, East China Normal University; Raja Sengupta, McGill University

**Discussants:**

- Yonghua Huang, East China Normal University
- Bright Addae, Simon Fraser University
- Yenny Cuellar Roncancio, Montreal University

**SRSA Business Meeting (invitation only) [Business Meeting]**

**Friday | 12:30 pm-2:00 pm | Ovation**

**49. Institutions & Public Policy [Formal Paper Session]**

**Friday | 1:30 pm-3:30 pm | Maestro**

**Presider:** Kerry Fang, Florida state university

- *Bureaucratic Influence on Policy: Evidence from Unemployment Insurance.....*Steven Craig, University of Houston; Edward Hoang, University of Colorado - Colorado Springs; Janet Kohlhase, University of Houston
- *The engine of persistency: Quantifying regional variation in the quasi-periodicity of institutional change in Europe.....*Nadiia Matsiuk, University of Padova
- *Policy (De)centralization and the Spatial Interaction Model: Theory and Illustrative Examples.....*Guido Candela, University of Bologna; Maurizio Mussoni, University of Bologna; Roberto Patuelli, University of Bologna
- *Communication Network and Power Dynamics in Economic Development Projects.....*Kerry Fang, Florida state university; Samuel Staley, Florida State University; Gordon Erlebacher, Florida State University; Yijia Wen, florida state university; Joey Zhang, Florida State University

**Discussants:**

- Kerry Fang, Florida state university
- Janet Kohlhase, University of Houston
- Nadiia Matsiuk, University of Padova
- Roberto Patuelli, University of Bologna

**50. Spatial Coronometrics III: Flows of People and Money and Mobility [Formal Paper Session]  
Friday | 1:30 pm-3:30 pm | Soprano C**

**Organizers:** Peter Nijkamp, Open University, Heerlen, The Netherlands; Karima Kourtit, Open University, The Netherlands

**President:** Jaewon Lim, University of Nevada - Las Vegas

- *Modeling the Long-term Impact of COVID-19 on Transit use in Latin American middle-sized cities: Lessons from one pilot study in Cusco, Peru.....*Viviana Zambrano, University of Connecticut; Avishan Montazer, University of Connecticut; Davis Chacón-Hurtado, University of Connecticut; Marisa Auguste, University of Connecticut; Renzo de la Riva Agüero, University of Connecticut
- *How do post-COVID migration trends stack up? A comparison of Census-based results with new address change data.....*Kevin Kane, Southern California Association of Governments
- *An Estimation of Origin-Destination Remittance Flow Matrix from US to Mexico.....*MIGUEL FLORES, Tecnológico de Monterrey
- *Regional Science, Peace Science, and COVID-19.....*Manas Chatterji, Binghamton University

**51. Regional/Rural Development VI - Housing [Formal Paper Session]  
Friday | 1:30 pm-3:30 pm | Symphonie 3A**

**Organizers:** Sarah Low, University of Illinois at Urbana-Champaign; Stephan Weiler, Colorado State University

**President:** Ayoung Kim, Mississippi State University

- *Nowhere to Sleep at the Bottom: The Plight of Housing Affordability for the Lowest Earners in the U.S.....*Thomas J. PlaHovinsak II, Longwood University; Andrew G Mueller, University of Denver; Lauren Terschan, Federal Reserve Bank of Atlanta
- *Preserving Affordable Rural Rental Properties by Understanding Market Competitiveness.....*Seva Rodnyansky, Occidental College; Brian An, Georgia Institute of Technology; Anthony Orlando, California Polytechnic State University - Pomona; Andrew Jakobovics, Enterprise Community Partners
- *Explaining Heirs' Property in the U.S. with Spatial Models: A Spatial Perspective.....*Ayoung Kim, Mississippi State University; John Green, Southern Rural Development Center, Mississippi State University; Cassandra Johnson Gaither, USDA Forest Service, Southern Research Station; G. Rebecca Dobbs, USDA Forest Service, Southern Research Station
- *Spatial Coordination of Home Buyouts in Disaster-Prone Areas: Experimental Evidence on Policy Mechanisms and their Tradeoffs.....*Laura Paul, USDA Economic Research Service; Christina McGranaghan, University of Delaware; AR Siders, University of Delaware; Polina Dineva, University of Delaware; Leah Palm-Forster, University of Delaware; Kent Messer, University of Delaware

**Discussants:**

- Ayoung Kim, Mississippi State University
- Laura Paul, USDA Economic Research Service
- Andrew G Mueller, University of Denver
- Seva Rodnyansky, Occidental College

## **52. Cities, Land Use & Zoning [Formal Paper Session]**

**Friday | 1:30 pm-3:30 pm | Symphonie 4A**

**President:** Diana Mok, University of Western Ontario

- *How does upzoning impact land use and transport: a case study of Seattle.....*Naifu Fan, Tongji University; Kara Kockelman, University of Texas - Austin; Peter Caballero, puget sound regional council; Jason Hawkins, University of Nebraska - Lincoln; Xiaohong Chen, Tongji University
- *Growing A Mega City.....*Xuequan Elsie Peng, University of Pennsylvania
- *Are all Transport Investments Equal? The Impact of Infrastructure on Urban Sprawl in Vienna, Austria.....*Hongxi Zhao, Ohio State University; H. Allen Klaiber, Ohio State University; Ulrich Morawetz, University of Natural Resources and Life Sciences; Douglas Wrenn, Pennsylvania State University
- *A global perspective on land use regulations and informal settlements.....*Eric Heikkila, University of Southern California; Cynthia Goytia, UTDT
- *Are riskier cities more compact? An empirical study of the 11 largest Census Metropolitan Areas in Canada, 2016.....*Diana Mok, University of Western Ontario; Jinfei Wang, University of Western Ontario; Xiaoxuan Sun, University of Western Ontario

**Discussants:**

- Diana Mok, University of Western Ontario
- Kara Kockelman, University of Texas - Austin
- Xuequan Elsie Peng, University of Pennsylvania
- Hongxi Zhao, Ohio State University
- Eric Heikkila, University of Southern California

## **53. Poverty & Welfare [Formal Paper Session]**

**Friday | 1:30 pm-3:30 pm | Symphonie 4B**

**President:** Yating Ru, Cornell University

- *Can decentralisation help address poverty and social exclusion in Europe?.....*Vassilis Tselios, Panteion University of Social and Political Sciences; Andrés Rodríguez-Pose, London School of Economics

- *Spatial clusters of single-mother households and regional characteristics in Japan.....*Yuki Shibatsuji, Keio University
- *How Urbanization Affects Child Nutritional Outcomes in African Countries – Empirical Evidence from Egypt, Ghana, Nigeria, and Senegal.....*Yating Ru, Cornell University

**Discussants:**

- Yating Ru, Cornell University
- Vassilis Tselios, Panteion University of Social and Political Sciences
- Yuki Shibatsuji, Keio University

**54. Location and Spatial Analysis III [Special Session]**

**Friday | 1:30 pm-3:30 pm | Soprano A**

**Organizers:** Alan Murray, University of California - Santa Barbara; Ran Wei, University of California - Riverside

**President:** Rick Church, University of California - Santa Barbara

- *Evaluation of a forest treatment planning heuristic for multiple objective problems.....*B. Amelia Pludow, UC Santa Barbara; Alan Murray, University of California - Santa Barbara; Rick Church, University of California - Santa Barbara; Vanessa Echeverri Figueroa, University of California - Santa Barbara
- *Immigration and Income Inequality in the United States.....*Francisco Castellanos-Sosa, University of Texas - Austin
- *Distance-based Measurements and Tests of Global Spatiotemporal Association.....*Carlos Baez, University of California - Santa Barbara
- *Mapping production activity in Yukon: An investigation of geo-spatial Gross domestic product.....*Ryan Macdonald, Statistics Canada; Robby Bemrose, Statistics Canada; Mark Brown, Statistics Canada

**Discussants:**

- Gunhak Lee, Seoul National University
- Rick Church, University of California - Santa Barbara
- Francisco Castellanos-Sosa, University of Texas - Austin
- Rick Church, University of California - Santa Barbara

**55. Perspectives on Geocomputation Approaches for Urban and Regional Systems III [Special Session]**

**Friday | 1:30 pm-3:30 pm | Symphonie 1**

**President:** Changho Lee, University of Texas - Dallas

- *Fire Disaster Evacuation Simulation in Chinese Urban Subway Station.....*Hao Chu, East China Normal University
- *Impacts of spatial imputation on  $p > 3$  median location-allocation problem solutions.....*Dongeun Kim, University of Texas - Dallas; Yongwan Chun, University of Texas - Dallas; Daniel Griffith, University of Texas - Dallas
- *Spatial Autocorrelation informed approaches to solving location-allocation problems: spatial autocorrelation-informed sampling for initial heuristic solutions.....*Changho Lee, University of Texas - Dallas; Daniel Griffith, University of Texas - Dallas; Hyun Kim, University of Tennessee; Yongwan Chun, University of Texas - Dallas

**Discussants:**

- Changho Lee, University of Texas - Dallas
- Hao Chu, East China Normal University
- Dongeun Kim, University of Texas - Dallas

**56. Diversity Initiatives in Regional Science [Panel]**

**Friday | 1:30 pm-3:30 pm | Soprano B**

**Organizer:** Yuri Mansury, Illinois Institute of Technology

**President:** Yuri Mansury, Illinois Institute of Technology

**Panelists:**

- Andrea Caragliu, Politecnico di Milano
- Tessa Conroy, University of Wisconsin - Madison
- Kieran Donaghy, Cornell University
- Bruce Newbold, McMaster University
- Amanda Weinstein, University of Akron
- John Sporing, NARSC

**57. Neighborhoods & Neighborhood Change**

**Friday | 1:30 pm-3:30 pm | Symphonie 2A**

**President:** Shriya Rangarajan, Cornell University

- *Spatiotemporal Patterns of Neighborhood Change: A Text Classification and Regionalization Approach.....*Isabelle Nilsson, University of North Carolina - Charlotte; Elizabeth Delmelle, University of North Carolina - Charlotte
- *National Homebuilders' Internal Network and Local Housing Outcomes.....*seohee kim, Duke University

- *Urbanization Patterns and Social Capital Networks among regions for Natural Disaster Resilience.....KIYOMI KAWAMOTO, Toyo University; Eric Yamashita, University of Hawaii - Manoa*
- *Spatial Patterns of Demolition Activity and Regional Deconstruction Potential: Using spatial analysis to inform policy-making in Ithaca, New York.....Shriya Rangarajan, Cornell University; Jennifer Minner, Cornell University; Yu Wang, Cornell University; Felix Heisel, Cornell University*

**Discussants:**

- Shriya Rangarajan, Cornell University
- Isabelle Nilsson, University of North Carolina - Charlotte
- seohee kim, Duke University
- KIYOMI KAWAMOTO, Toyo University

**Coffee [Informal meeting]**

**Friday | 3:30 pm-4:00 pm | Grand Salon Opera Foyer**

**58. Education: Outcomes & Impacts [Formal Paper Session]**

**Friday | 4:00 pm-6:00 pm | Maestro**

**President:** Jeff Chan, Wilfrid Laurier University

- *Local effects of education and age cohorts on unemployment in Germany.....Carsten Ochsén, University of Applied Labour Studies*
- *Does access to public parks influence educational outcomes for elementary school students?.....Lea Fortmann, University of Puget Sound; Isha Rajbhandari, University of Puget Sound*
- *Is Education Finance Driven by Tastes for Equality, or Tastes for Education?.....Chris Biolsi, Western Kentucky; Steven Craig, University of Houston; Amrita Dhar, University of Mary Washington*
- *The Long-Run Effects of Childhood Exposure to Market Access Shocks: Evidence from the U.S. Railroad Network Expansion.....Jeff Chan, Wilfrid Laurier University*

**Discussants:**

- Jeff Chan, Wilfrid Laurier University
- Carsten Ochsén, University of Applied Labour Studies
- Isha Rajbhandari, University of Puget Sound
- Steven Craig, University of Houston

**59. Housing IV: Rents & Taxes [Formal Paper Session]**

**Friday | 4:00 pm-6:00 pm | Symphonie 1**

**President:** Timothy Hodge, Oakland University

- *Tenant Rights, Eviction, and Rent Affordability.....*Edward Coulson, University of California - Irvine; Thao Le, Georgia State University; Lily Shen, Clemson University
- *Legendary Bridges: Rental Housing Markets in Tokugawa Japan.....*Yu Mandai, Mitsui Bunko; Masaki Nakabayashi, The University of Tokyo
- *Tax Revolt and Neighborhood Churning: A California Style.....*Soomi Lee, University of La Verne
- *A Double Negative: Capitalizing on Assessment Regressivity.....*Timothy Hodge, Oakland University; Timothy Komarek, Old Dominion University; Andrew McAllister, Oakland University

**Discussants:**

- Timothy Hodge, Oakland University
- Edward Coulson, University of California - Irvine
- Masaki Nakabayashi, The University of Tokyo
- Soomi Lee, University of La Verne

**60. Migration: Patterns and Impacts [Formal Paper Session]**

**Friday | 4:00 pm-6:00 pm | Symphonie 2A**

**President:** Yu Wang, Cornell University

- *The spatial spillovers of migration on education: Evidence from the Philippines.....*Christopher J. Cabuay, De La Salle University; Budy P. Resosudarmo, Australian National University
- *Social and geographic mobility in the Northern California megaregion: an analysis of sequential moves.....*Andre Comandon, University of Southern California; Seva Rodnyansky, Occidental College; Marlon Boarnet, University of Southern California
- *Welcome back! The impact of 'return initiatives' on interregional return migration to rural regions.....*Anja Rossen, Institute for Employment Research (IAB); Moritz Meister, Institute for Employment Research (IAB); Cornelius Peters, Institute of Rural Economics
- *TRACKING THE PEACOCKS: A SPATIAL ANALYSIS OF INTERPROVINCIAL MIGRATION IN CHINA, 1990-2020.....*Yu Wang, Cornell University; Sainan Lin, Wuhan University; John Carruthers, Cornell University

**Discussants:**

- Yu Wang, Cornell University
- Budy P. Resosudarmo, Australian National University
- Andre Comandon, University of Southern California



- Anja Rossen, Institute for Employment Research (IAB)

### **61. Regional/Rural Development VII - Entrepreneurship & Rural Economic Development [Formal Paper Session]**

**Friday | 4:00 pm-6:00 pm | Symphonie 3A**

**Organizers:** Sarah Low, University of Illinois at Urbana-Champaign; Stephan Weiler, Colorado State University

**Presider:** Nicholas Kacher, Scripps College

- *Rural Agglomeration: Examining Trends and Determinants of the Population Distribution Between Towns and the Open-Countryside in Rural America.....*Austin Sanders, USDA Economic Research Service; Sarah Low, University of Illinois at Urbana-Champaign
- *Impacts of Broadband Availability and Speed on Employment at the Business Establishment Level: An Investigation Using Validated National Establishment Time Series (NETS) and Data Axle Data.....*Christina Biedny, Oklahoma State University; John Pender, USDA Economic Research Service; Brian Whitacre, Oklahoma State University
- *Housing Debt and New Business Formation.....*Nicholas Kacher, Scripps College
- *New Technologies, Innovation and Rural-Urban Linkages.....*Philip McCann, University of Manchester; Raquel Ortega-Argilés, University of Manchester; Enrique Garcilazo, OECD; Michelle Marshallian, OECD

#### **Discussants:**

- Nicholas Kacher, Scripps College
- Austin Sanders, USDA Economic Research Service
- Craig Carpenter, Michigan State University
- Philip McCann, University of Manchester

### **62. Economic Impact of Openings & Closures [Formal Paper Session]**

**Friday | 4:00 pm-6:00 pm | Symphonie 4A**

**Presider:** Mark Partridge, Ohio State University

- *Emergency Department Closures and Mortality.....*Pinka Chatterji, University at Albany, SUNY; Chunyu Ho, University at Albany, SUNY; Xue Wu, University at Albany, SUNY
- *Military Installations as Economic Anchors: An Enhanced Examination of Regional Impacts.....*Joshua Drucker, University of Illinois at Chicago; Marc Doussard, University of Illinois Urbana Champaign
- *Causal Inference of the Impact of Abolition of Railways on Local Population Along Lines.....*JUNYA FUKUMOTO, Tohoku University; Shuhei Kasuo, Sojitz Corporation

- *Identifying Agglomeration Spillovers: New Evidence from Large Plant Openings.....*Carlianne Patrick, Georgia State University; Mark Partridge, Ohio State University

**Discussants:**

- Mark Partridge, Ohio State University
- Xue Wu, University at Albany, SUNY
- Joshua Drucker, University of Illinois at Chicago
- JUNYA FUKUMOTO, Tohoku University

**63. Regional Economic Effects of Disasters [Special Session]**

**Friday | 4:00 pm-6:00 pm | Soprano A**

**Organizers:** Yasuhide Okuyama, University of Kitakyushu; Adam Rose, University of Southern California

**President:** Adam Rose, University of Southern California

- *Impact of Floods & Wildfires on Household Finance.....*Amy Ando, University of Illinois - Urbana-Champaign; Paavani Sachdeva, University of Illinois - Urbana-Champaign; Yilan Xu, University of Illinois - Urbana-Champaign
- *Behavioral Economic Consequences of Disasters.....*Adam Rose, University of Southern California
- *Fiscal policy response of local governments to floods in Italy.....*Chiara Lodi, University of Urbino; Giovanni Marin, University of Urbino; Marco Modica, Gran Sasso Science Institute
- *Application of Urban Landuse Survey on Hazard Vulnerability Assessment – A Case Study of Xibei Area, New Taipei City, Taiwan.....*WEN-YEN LIN, MING CHUAN UNIVERSITY; CHI-TUNG HUNG, MING CHUAN UNIVERSITY

**Discussants:**

- Adam Rose, University of Southern California
- Marco Modica, Gran Sasso Science Institute
- Huan LIU, Kyoto University
- Yasuhide Okuyama, University of Kitakyushu
- Paavani Sachdeva, University of Illinois - Urbana-Champaign

**64. "Assessing a Waterfront Climate Resilience Plan: Findings from the NERSA/NARSC summer School"**

**[Special Session]**

**Friday | 4:00 pm-6:00 pm | Soprano B**

**Organizer:** Kieran Donaghy, Cornell University

**President:** Kieran Donaghy, Cornell University

- *Economic Impact Analysis of the NYC Financial District (FiDi) Plan Implementation in Lower Manhattan: An Input-Output Approach.....*Caroline Welter, West Virginia University; Daniel Centuriao, West Virginia University
- *Who Cares? An Analytical Hierarchy Process to Understand Stakeholder Priorities in Climate Resilience Plans.....*Shriya Rangarajan, Cornell University; Marina Manganaris, George Mason University; Yaxuan Wen, Brandeis University; Daniel Centuriao, West Virginia University
- *How do We Value Access to Water vs. Flooding Risk? A Difference-in-Difference Spatial Hedonic Model Approach.....*Yaxuan Wen, Brandeis University; Shriya Rangarajan, Cornell University; Marina Manganaris, George Mason University; Daniel Centuriao, West Virginia University
- *A Performance-Based Engineering Prospective to assess the regional risks of flooding in Lower Manhattan.....*Prateek Arora, New York University; Sajani Kandel, University of Massachusetts - Boston; Riccardo Negri, New York University; Evan Heberlein, Cornell University
- *Resilience and adaptation: an application of Adaptive Policy-Making for the New York City waterfront.....*Mauricio Carvallo Aceves, University of British Columbia; Lillian Lau, Cornell University; Aysun Aygun Ogur, Pamukkale Üniversitesi; Xiaohui Qiao, University of Florida

**Discussants:**

- Shriya Rangarajan, Cornell University
- Yuri Mansury, Illinois Institute of Technology
- Marina Manganaris, George Mason University
- Caroline Welter, West Virginia University
- Kieran Donaghy, Cornell University

**65. Spatial Corometrics III: Institutions, Neighborhoods & Resilience [Special Session]**

**Friday | 4:00 pm-6:00 pm | Soprano C**

**Organizers:** Peter Nijkamp, Open University, Heerlen, The Netherlands; Karima Kourtit, Open University, The Netherlands

**President:** Peter Nijkamp, Open University, Heerlen, The Netherlands

- *Institutional quality and COVID-19 vaccination: national factors and subnational authority.....*Chiara F. Del Bo, Università degli Studi di Milano
- *Neighborhood Effects on Covid-19 Vaccinations.....*Charlotta Mellander, Jonkoping International Business School
- *Rural and urban fertility impacts of COVID-19 stay at home orders.....*Michael Betz, Ohio State University
- *American Craft Breweries and COVID-19 - Responding to the Challenge.....*Neil Reid, University of Toledo

**66. NARSC Diversity & Inclusion Committee Annual Lecture [Special Session]**

**Friday | 4:00 pm-6:00 pm | Symphonie 3B**

- *The Impacts of COVID-19 on Food Access.....*Daoqin Tong, Arizona State University

**67. Machine Learning in Regional Science: Perspectives, Methods, and Applications [Special Session]**

**Friday | 4:00 pm-6:00 pm | Symphonie 4B**

**Organizers:** Kevin Credit, Maynooth University; Matthew Lehnert, Al Akhawayn University

**President:** Antonio Paez, McMaster University

- *A structured comparison of causal machine learning methods to assess heterogeneous treatment effects in spatial data.....*Kevin Credit, Maynooth University; Matthew Lehnert, Al Akhawayn University
- *Evaluating Impacts of Existing Approaches Applied to Account for Spatial Dependencies in Machine Learning Methods on Prediction Accuracy.....*Emre Tepe, University of Florida
- *What Drives Urban Redevelopment Activities? Evidence from Machine-Learning in Three US Cities Based on Unbalanced Data.....*Hanxue Wei, Cornell University; John Carruthers, Cornell University
- *Mapping poverty in low- and middle- income countries using asset-based measures and geospatial big data.....*Yating Ru, Cornell University; Chris Barrett, Cornell University; Elizabeth Jane Tennant, Cornell University; Peizan Sheng, Cornell University
- *A machine learning approach to obtain functional migration regions.....*Antonio Paez, McMaster University

**Discussants:**

- Antonio Paez, McMaster University
- Kevin Credit, Maynooth University
- Emre Tepe, University of Florida
- Hanxue Wei, Cornell University
- Yating Ru, Cornell University

**68. Isserman Lecture [Special Session]**

**Friday | 6:15 pm-7:15 pm | Soprano A**

**President:** Luc Anselin, University of Chicago

- *Coming Full Circle: Identifying Issues and Informing Action in Regional Science.....*Sarah Low, University of Illinois at Urbana-Champaign

**69. Reception for Isserman Lecture [Informal meeting]**

**Friday | 7:15 pm-8:15 pm | Soprano A**

**Coffee [Informal meeting]**

**Saturday | 7:30 am-8:30 am | Grand Salon Opera Foyer**

**Registration & Exhibits [Registration and Exhibits]**

**Saturday | 7:30 am-10:00 am | Grand-Salon Opera Foyer**

**70. Inequality: Regional Dynamics & Socio-Economic Impacts [Formal Paper Session]**

**Saturday | 8:00 am-10:00 am | Symphonie 1**

**Presider:** Kwasi Tabiri, Kwame Nkrumah University of Science and Technology

- *Public Debt and Regional Inequality in India: A Spatial Analytics Approach*.....Sudhir Thakur, California State University Sacramento
- *Re-examining patterns of regional income inequality in the U.S., 1970-2020*.....Annie Lee, McGill University; Sébastien Breau, McGill University
- *Measuring the Value of Rent Stabilization and Understanding its Implications for Racial Inequality: Evidence from New York City*.....Ruoyu Chen, University of Windsor; Hanchen Jiang, University of North Texas; Luis Quintero, Johns Hopkins University
- *A disaggregated analysis of socioeconomic inequalities in childhood malnutrition in Nigeria*.....Jacob Novignon, Kwame Nkrumah University of Science and Technology; Chukwuedo Susan Oburota, University of Calabar; Kwasi Tabiri, Kwame Nkrumah University of Science and Technology

**Discussants:**

- Kwasi Tabiri, Kwame Nkrumah University of Science and Technology
- Sudhir Thakur, California State University Sacramento
- Annie Lee, McGill University
- Ruoyu Chen, University of Windsor

**71. Regional/Rural Development VIII - Regional and Rural Finances [Formal Paper Session]**

**Saturday | 8:00 am-10:00 am | Symphonie 3A**

**Organizers:** Sarah Low, University of Illinois at Urbana-Champaign; Stephan Weiler, Colorado State University

**Presider:** Austin Landini, University of Missouri - Columbia

- *Credit Constraints on Military Spouses*.....Kristopher Deming, Michigan State University; Craig Carpenter, Michigan State University

- *CRA and the Geographic Dispersion of PPP Loans.....*Austin Landini, University of Missouri - Columbia; Kristopher Deming, Michigan State University; Stephan Weiler, Colorado State University
- *Potential Impacts of Social Security Cash Reserve Depletion and Proposed Program Reform on Next Generation Low-income Rural Recipients.....*Tracey Farrigan, U.S. Department of Agriculture; Leif Jensen, Pennsylvania State University
- *The Role of Personal Bankruptcy Protections on Entrepreneurship: Cushion v. Forgiveness.....*Ignacio Correias, Colorado State University; Stephan Weiler, Colorado State University

**Discussants:**

- Austin Landini, University of Missouri - Columbia
- Tracey Farrigan, U.S. Department of Agriculture
- Kristopher Deming, Michigan State University
- John Pender, USDA Economic Research Service

**72. “Analysis of Economic Viability, Resilience and Sustainability of Transportation Logistics Systems in Post-Conflict Zones” [Formal Paper Session]  
Saturday | 8:00 am-10:00 am | Symphonie 3B**

**Organizers:** Adam Rose, University of Southern California; Kieran Donaghy, Cornell University

**Presiders:** Adam Rose, University of Southern California; Peter Nijkamp, Open University, Heerlen, The Netherlands;

- *Putting it Together: Assembling and Solving a Dynamic Spatial Computable General Equilibrium Model in EMP.....*Kieran Donaghy, Cornell University
- *Markets and Port Infrastructure.....*Terry Clower, George Mason University; Laurie Schintler, George Mason University; Camilla Bosanquet, George Mason University
- *“Expert Elicitation to Specify Stakeholder Objectives in Transportation Infrastructure Development” ation Infrastructure Development.....*Richard John, University of Southern California; Adam Rose, University of Southern California; Denton Cohen, University of Southern California
- *Post-War Lessons and Actions on Regions in Disruption: Cascadic Prosilience Investments.....*Peter Nijkamp, Open University, Heerlen, The Netherlands; Karima Kourtit, Open University, The Netherlands

**Discussants:**

- Peter Nijkamp, Open University, Heerlen, The Netherlands
- Kieran Donaghy, Cornell University

- Terry Clower, George Mason University
- Adam Rose, University of Southern California

**Panelists:**

- Kieran Donaghy, Cornell University
- Terry Clower, George Mason University
- Laurie Schintler, George Mason University
- Camilla Bosanquet, George Mason University
- Richard John, University of Southern California
- Adam Rose, University of Southern California
- Denton Cohen, University of Southern California

**73. Honoring and Celebrating Arthur Getis: A LEGEND in Spatial Analysis I [Special Session]  
Saturday | 8:00 am-10:00 am | Soprano A**

**Organizers:** Alan Murray, University of California - Santa Barbara; Luc Anselin, University of Chicago; Sergio Rey, University of California - Riverside

**Presider:** Luc Anselin, University of Chicago

- *The contributions of Art Getis to Regional Science and Spatial Analysis.....*Luc Anselin, University of Chicago; Sergio Rey, San Diego State University; Alan Murray, University of California - Santa Barbara
- *Statistical Hot Spot Maps: A Spatial Bibliometric Festschrift in Honor of Art Getis.....*Lauren Griffin, Esri; Kevin Butler, Esri; Colleen Conner, Esri
- *Inspired by Art.....*Peter Rogerson, Arizona State University
- *The Art of regional science.....*Alan Murray, University of California - Santa Barbara

**Discussants:**

- Peter Rogerson, Arizona State University
- Alan Murray, University of California - Santa Barbara
- Sergio Rey, University of California - Riverside
- Lauren Griffin, Esri

**74. Social Media in Region Science Panel Discussion [Panel]  
Saturday | 8:00 am-10:00 am | Symphonie 2A**

**Organizers:** Amanda Weinstein, University of Akron; John Winters, Iowa State University; John Spring,

NARSC

**President:** John Sporing, NARSC

**Panelists:**

- Rachel Franklin, Newcastle University
- Mike Moffatt, Ivey Business School and Smart Prosperity Institute
- Marisa Peacock, Founder and Chief Strategist at the Strategic Peacock; Lecturer, Charles H. Sandage Department of Advertising, University of Illinois at Urbana Champaign
- Amanda Weinstein, University of Akron

**Coffee [Informal meeting]**

**Saturday | 10:00 am-10:30 am | Grand Salon Opera Foyer**

**75. Skills, Earnings, & Income [Formal Paper Session]**

**Saturday | 10:30 am-12:30 pm | Symphonie 2A**

**President:** Valérie von Gleichen, University of Wuerzburg

- *Cities, Aggregate Income, and Growth in Germany.....*Katja Gehr, University of Wuerzburg; Michael Pflüger, University of Wuerzburg
- *The Changing Geography of Skills and Real Income.....*Anthony Frigon, HEC MONTREAL; Michael Storper, University of California, Los Angeles
- *Regional Changes in Minimum Wage and their Effect on the US Labor Market.....*Dawn Otterby, University of Maine; Andrew Crawley, University of Maine; Todd Gabe, University of Maine
- *The earnings premium in bigger cities - Evidence from Germany.....*Valérie von Gleichen, University of Wuerzburg

**Discussants:**

- Valérie von Gleichen, University of Wuerzburg
- Katja Gehr, University of Wuerzburg
- Anthony Frigon, HEC MONTREAL
- Dawn Otterby, University of Maine

**76. Regional/Rural Development IX - Minority Banking and Entrepreneurship [Formal Paper Session]**

**Saturday | 10:30 am-12:30 pm | Symphonie 3A**

**Organizers:** Sarah Low, University of Illinois at Urbana-Champaign; Stephan Weiler, Colorado State University

**President:** Tessa Conroy, University of Wisconsin - Madison



- *Place-Based Tax Incentives and Minority Employment: Evidence from New Market Tax Credit (NMTC) Program.....*Anil Rupasingha, USDA Economic Research Service; Alex Marré, National Telecom. and Information Administration; Josemari Feliciano, USDA – Rural Development
- *Demographic Transition and Census Tract Economic Opportunity: A Study of Colorado.....*Austin Landini, University of Missouri - Columbia
- *Pushed, Pulled, and Stuck: Labor Markets and New Businesses Owned by People of Color.....*Tessa Conroy, University of Wisconsin - Madison; Austin Landini, University of Missouri - Columbia
- *"Let Us Put Our Moneys Together:" Minority-Owned Banks, Local Economic Development, and Resilience to Crises.....*Allen Berger, University of South Carolina; Maryann Feldman, Arizona State University; William Langford, University of North Carolina - Chapel Hill; Raluca Roman, Federal Reserve Bank of Philadelphia

**Discussants:**

- William Langford, University of North Carolina - Chapel Hill
- Anil Rupasingha, USDA Economic Research Service
- Tessa Conroy, University of Wisconsin - Madison
- Austin Landini, University of Missouri - Columbia

**77. Disease Mitigation [Formal Paper Session]**

**Saturday | 10:30 am-12:30 pm | Symphonie 4A**

**President:** Clio Andris, Georgia Institute of Technology

- *City and Regional Demand for Vaccines Whose Supply Arises from Competition in a Bertrand Duopoly.....*Amit Batabyal, Rochester Institute of Technology; Hamid Beladi, University of Texas at San Antonio
- *Human-Network Regions as Geographic Units for Disease Mitigation.....*Clio Andris, Georgia Institute of Technology; Caglar Koylu, University of Iowa; Mason Porter, University of California - Los Angeles
- *Optimizing spatial interventions for coupled economic-epidemic systems in an urban megaregion.....*Gong Zhaoya, Peking University; Lou Huiping, Peking University; Chen Zhenhua, Ohio State University

**Discussants:**

- Gong Zhaoya, Peking University
- Amit Batabyal, Rochester Institute of Technology
- Clio Andris, Georgia Institute of Technology

**78. Honoring and Celebrating Arthur Getis: A LEGEND in Spatial Analysis II [Special Session]**  
**Saturday | 10:30 am-12:30 pm | Soprano A**

**Organizers:** Alan Murray, University of California - Santa Barbara; Sergio Rey, University of California - Riverside; Luc Anselin, University of Chicago

**President:** Lauren Griffin, Esri

- *Left Behind and Left Out? Evaluating (Dis)connections in the Spatially Focused Migration Network of England and Wales.....*Rachael Sanderson, Newcastle University; Rachel Franklin, Newcastle University; Danny MacKinnon, Newcastle University; Joe Matthews, Newcastle University
- *A Spatio-temporal Ecological Model of COVID-19 Vaccination Disparities in Texas.....*Michael Tiefelsdorf, University of Texas - Dallas; Kyunghye Rhyu, University of Texas - Dallas
- *Identifying the poverty alleviation through space-time hot spots analysis from night-time images: A case study in Eastern Economic Corridor, Thailand.....*Dongmei Chen, Queen`s University; Sirikul Hutasaavi-Tungsapdougto, Queen`s University
- *Mind the Forgotten Middle: The Bivariate Local Geary`s C.....*Ran Tao, University of South Florida; Jean-Claude Thill, University of North Carolina - Charlotte

**Discussants:**

- Rick Church, University of California - Santa Barbara
- Jean-Claude Thill, University of North Carolina - Charlotte
- Tong Zhang, Purdue University
- Elijah Knapp, University of California - Riverside

**79. Clusters [Special Session]**  
**Saturday | 10:30 am-12:30 pm | Symphonie 1**

**Organizers:** Timothy F. Slaper, Indiana University; Kerry Fang, Florida state university

**President:** PING Zheng, Indiana University

- *Spatio-temporal localisation pattern of technological startups – RNN in predicting intra-urban startups' clusters.....*Maria Kubara, University of Warsaw
- *Cross-border global climate change mitigation technology diffusion: A network perspective.....*Jianhua Zhang, Groningen University; Dimitris Ballas, Groningen University; Xiaolong Liu, Groningen University
- *Migration, Economic Growth and Spatial Effects: Evidence from City Clusters in China.....*Zehan Pan, Fudan University; Xiaochen Zhang, Duke Kunshan University; Gang Li, Fudan University

- *Building Industry Clusters from the Ground Up: Defining and measuring industry development for precision policies and specific regions.....* PING Zheng, Indiana University; Timothy F. Slaper, Indiana University

**Discussants:**

- PING Zheng, Indiana University
- Maria Kubara, University of Warsaw
- Jianhua Zhang, Groningen University
- Xiaochen Zhang, Duke Kunshan University

**80. Papers in Regional Science Lecture [Special Session]**

**Saturday | 10:30 am-12:30 pm | Symphonie 3B**

**President:** Rosella Nicolini, Universitat Autònoma de Barcelona

- *The Impacts of More Severe Weather Events on Housing Markets.....* Amanda Ross, University of Alabama

Discussant:

☒ Edward Coulson, University of California - Irvine;

**NARSC Awards Luncheon [Business Meeting]**

**Saturday | 12:30 pm-2:30 pm | Grand Salon Opera**

**81. The Transportation System: Impact of Investments [Formal Paper Session]**

**Saturday | 2:45 pm-4:45 pm | Symphonie 1**

**President:** Tobie Cusson, Imperial College London

- *Can a Supply Change in Mass Transit can (re)Shape Urbanization? The Example of the Tramway in Dijon (France).....* Jean Dube, Université Laval; Mohamed Hilal, Institut Agro Dijon; Julie Le Gallo, Institut Agro Dijon; Diego Legros, Université de Bourgogne
- *The Impact of Public Transit on Firms' Survival: the Case of the Laval Subway.....* Marie-Pier Champagne, Laval University; Jean Dube, Université Laval
- *The welfare effects of spatial re-organisation: broadening the theoretical foundations of appraisal.....* Tobie Cusson, Imperial College London; Daniel Hörcher, Imperial College London; Roger Vickerman, Imperial College London; Daniel Graham, Imperial College London
- *Examining the relationship between transit, gentrification, and neighborhood characteristics.....* Adam Schmidt, North Carolina State University; Eleni Bardaka, North Carolina State University

**Discussants:**

- Adam Schmidt, North Carolina State University
- Jean Dube, Universite Laval
- Marie-Pier Champagne, Laval University
- Tobie Cusson, Imperial College London

**82. Innovation & Entrepreneurship [Formal Paper Session]**

**Saturday | 2:45 pm-4:45 pm | Symphonie 2A**

**President:** Tom Kemeny, University of Toronto

- *The Cascadia Innovation Corridor: The Making of a High Tech Cross Border Region?.....*Kathrine Richardson, San Jose State University
- *Regional Innovation, Age Structure and Productivity: Evidence from China's Patent Data.....*Xiaochen Zhang, Duke Kunshan University; Min Zhang, Soochow University
- *SMEs Under Water. The Impact of Households' Capital Shocks on SMEs.....*Rebecca Mari, London School of Economics
- *Disruptive innovation and spatial inequality.....*Tom Kemeny, University of Toronto; Sergio Petralia, Utrecht University; Michael Storper, University of California, Los Angeles

**Discussants:**

- Tom Kemeny, University of Toronto
- Kathrine Richardson, San Jose State University
- Xiaochen Zhang, Duke Kunshan University
- Haifeng Qian, University of Iowa
- Rebecca Mari, London School of Economics

**83. Regional/Rural Development X - Potpourri [Formal Paper Session]**

**Saturday | 2:45 pm-4:45 pm | Symphonie 3A**

**Organizers:** Sarah Low, University of Illinois at Urbana-Champaign; Stephan Weiler, Colorado State University

**President:** Belinda Archibong, Columbia University

- *Going Native: Adopting Local Heuristics for Rural and Regional Development Projects.....*Chayce Kenny, Saint Louis University

- *The Epidemic Effect: Epidemics, Institutions and Human Capital Development*.....Belinda Archibong, Columbia University; Francis Annan, Georgia State University; Uche Ekhatomobayode, World Bank
- *Trade, Offshoring, and Manufacturing Employment Volatility in Mexico*.....Adam Walke, Colorado State University

**Discussants:**

- Adam Walke, Colorado State University
- Chayce Kenny, Saint Louis University
- Belinda Archibong, Columbia University

**84. Alternative Vehicles: Perceptions, Impacts & Production [Formal Paper Session]**

**Saturday | 2:45 pm-4:45 pm | Symphonie 3B**

**President:** Thomas Klier, Federal Reserve Bank of Chicago

- *Technological Change for Precarious Work: Perception of Autonomous Vehicles from Transportation Platform Drivers*.....Sicheng Wang, Michigan State University; Elizabeth Mack, Michigan State University
- *Estimating Macroeconomic Impacts of NEVI*.....Yue Ke, Argonne National Laboratory; Marianne Mintz, Argonne National Laboratory; Yan Zhou, Argonne National Laboratory
- *Investigating the Factors of Household Purchase Intention of Autonomous Vehicles in California, United States*.....Md. Mokhlesur Rahman, University of North Carolina - Charlotte; Jean-Claude Thill, University of North Carolina - Charlotte
- *North America's Rapidly Growing EV Market: Implications for the Geography of Vehicle Production*.....Thomas Klier, Federal Reserve Bank of Chicago; Jim Rubenstein, Miami University

**Discussants:**

- Thomas Klier, Federal Reserve Bank of Chicago
- Sicheng Wang, Michigan State University
- Yue Ke, Argonne National Laboratory
- Md. Mokhlesur Rahman, University of North Carolina - Charlotte

**85. Food & Waste [Formal Paper Session]**

**Saturday | 2:45 pm-4:45 pm | Symphonie 4A**

**President:** Bartłomiej Rokicki, University of Warsaw

- *Refining food access metrics for more actionability*.....Shriya Rangarajan, Cornell University

- *We Love Green: Households' Valuation of Organic Farming and Challenges of Signalling.....*Marine Coinon, Toulouse School of Economics; Rachel GUILLAIN, University of Burgundy; Sophie Legras, INRA - Dijon
- *Effects of Veterinarians on Foodborne Illness and Meat Output: Evidence From the Veterinary Medicine Loan Repayment Program.....*Ben Blemings, Cornell University; Clinton Neill, Cornell University
- *Compulsory solid waste collection in Poland – spatial inequalities and their determinants.....*Bartłomiej Rokicki, University of Warsaw; Raul Silveira Neto, Federal University of Pernambuco; Magdalena Miśkowiec, Jagiellonian University

**Discussants:**

- Bartłomiej Rokicki, University of Warsaw
- Shriya Rangarajan, Cornell University
- Rachel GUILLAIN, University of Burgundy
- Ben Blemings, Cornell University

**86. Honoring and Celebrating Arthur Getis: A LEGEND in Spatial Analysis III [Special Session]  
Saturday | 2:45 pm-4:45 pm | Soprano A**

**Organizers:** Alan Murray, University of California - Santa Barbara; Luc Anselin, University of Chicago; Sergio Rey, University of California - Riverside

**President:** Dongmei Chen, Queen`s University

- *Spatially Constrained Regime Regression.....*Luc Anselin, University of Chicago; Pedro Amaral, Universidade Federal de Minas Gerais
- *Measuring Two Decades of Urban Spatial Structure: The Evolution of Agglomeration Economies in American Metros.....*Elijah Knaap, University of California - Riverside; Sergio Rey, San Diego State University

**Discussants:**

- Michael Tiefelsdorf, University of Texas - Dallas
- Rachel Franklin, Newcastle University

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