Welcome to Napa and our 58th Annual Meeting! Have we got a fantastic few days in store for you!

Everything you need to know about the meeting is contained in the following pages. Before diving in, though, take a few moments to read the next few paragraphs for an overview of the schedule. Please also do take some time to familiarize yourself with our session etiquette guidelines (page 5). The Program Participant Locator (pages 16–18) will help you locate your program assignments and the map of our meeting space on page 21 will direct you where to go. As always, late program changes have occurred; be sure to double-check your assignments in case your original scheduling has shifted.

This year, our meeting gets going on Sunday afternoon in the Grand Ballroom with the 9th Annual Lay James Gibson Opening Plenary, featuring the Deputy Chief Economist of CoreLogic, Ralph McLaughlin, who will talk about the Automated Transport Technology and its impact on regional economies and land use. Join us in the Vintner’s Ballroom after the Opening Session for the Welcoming Reception, this year featuring a wine-tasting event.

On Monday afternoon, please join us in the Napa Valley Ballroom for the 7th Annual Getis-Ord Lecture in Spatial Analysis, where this year’s speaker is Michael Batty—one of the world’s eminent professors of spatial analysis and GIS. Peter Batey will deliver discussant remarks after Batty’s address, and a reception for session attendees will follow the formal part of the session.

Tuesday is a full day: not only paper sessions but also our Annual Banquet Luncheon midday and the President’s Reception in the evening—both in the Napa Valley Ballroom. At the Luncheon, this year’s President, Genevieve Giuliano, will give her Presidential Address and the Tiebout and Springer Prize winners will be announced. We will announce the winners of the wine tasting event of Welcome Reception!

A final reminder: when you picked up your meeting packet at the registration desk, along with your program and name badge, you should have received three colored tickets. Guard these carefully! You will use the PURPLE ticket for your wine tasting event or your first drink at the Welcoming Reception on Sunday evening. You YELLOW ticket is good for your first drink at the Getis-Ord Lecture Reception. Your ORANGE ticket gives you entry to the Annual Banquet Luncheon on Tuesday—no ticket, no lunch! Finally, the GREEN ticket is good for your first drink at the President’s Reception on Tuesday evening.

A hearty thanks to all of you, WRSA meeting participants. Without you, the meeting wouldn’t be what it is: The Way Academic Life Should Be!

Best wishes for a productive, memorable, and enjoyable meeting here in scenic Napa Valley!
**Saturday, February 9**

11:30–6:00 PM, **Registration**  (Atlas Peak)
12:00–4:30 PM, **Pre-WRSA The Regional Science Academy (TRSA) – ABC Workshop I**  (Atlas Peak)

**Saturday, 12:00 PM–4:30 PM**

**Pre-WRSA The Regional Science Academy (TRSA) Workshop ~ Atlas Peak**

**ABC (Advanced Brainstorm Carrefour) Workshop I**

12:00 Refreshments
12:50–1:00 Greeting and Introduction to the program of TRSA ABC Workshop I
Peter NIJKAMP, Jheronimus Academy of Data Science (JADS), The Netherlands

**Part 1**

Chair: Hans WESTLUND, KTH Royal Inst. Technology, Sweden
1:00–1:30 Blockchains and employment effects in regions
Roger R. STOUGH, Raj KULKARNI, and Laurie SCHINTLER, George Mason Univ., Arlington, Virginia, USA, and Nishit SAHAY, RR&S Consulting Group, Fairfax, Virginia, USA

1:30–2:00 Labor markets, global value chains and digitalization
Martin ANDERSSON, Blekinge Inst. Technology, Sweden

2:00–2:30 Migrant entrepreneurship in perspective
Karima KOURTIT, Jheronimus Academy of Data Science (JADS) & Eindhoven Univ. Technology, The Netherlands

2:30–3:00 Estimating the spatial effects of CO\textsubscript{2} emission control policy in the transportation sector among the U.S. states
Jaewon LIM, Univ. Nevada, Las Vegas, USA, Doohwan WON, Pusan National Univ., Korea, and Sandy DALL’ERBA, Univ. Illinois, Urbana-Champaign, USA, Aaron Colletta, Univ. Nevada, Las Vegas, USA

Coffee Break: 3:00–3:30

**Part 2**

Chair: Arthur GETIS, San Diego State Univ., California, USA
3:30–4:00 Artificial intelligence and digitalization: Labor force effects going forward
Laurie SCHINTLER, George Mason Univ., Arlington, Virginia, USA

4:00–4:30 Reflections on growth policies in analytical planning models for cities
Tschangho John KIM, Univ. Illinois, Urbana-Champaign, USA

**Sunday, February 10**

8:00 AM –6:00 PM, **Registration**  (Grand Ballroom Foyer)
8:15 AM–12:30 PM, **Pre-WRSA The Regional Science Academy (TRSA) – ABC Workshop II**  (Atlas Peak)

3:30 PM–5:15 PM, **The 9th Annual Lay James Gibson Opening Session**  (Grand Ballroom)
5:30 PM–7:00 PM, **Welcome Reception featuring Wine Tasting**  (Vintner’s Ballroom)

**Sunday, 8:15 AM–12:30 PM**

**Pre-WRSA The Regional Science Academy (TRSA) Workshop ~ Atlas Peak**

ABC (Advanced Brainstorm Carrefour) Workshop II

8:15 Refreshments
8:50–9:00 Greeting and Introduction to the program of TRSA ABC Workshop II
Roger R. STOUGH, George Mason Univ., Arlington, Virginia, USA and Neil REID, Univ. of Toledo, Ohio, USA

**Part 3**

Chair: Karima KOURTIT, JADS & Eindhoven Univ. Technology, The Netherlands
9:00–9:30 Labor challenges facing the hospitality industry
Neil REID, Univ. Toledo, Ohio, USA

9:30–10:00 Political economy of asymmetric aging, productivity and economic growth
Mehmet TOSUN, Univ. Nevada, Reno, USA

10:00–10:30 Regional science and spatial planning: The need to re-connect
Peter BATEY, Univ. Liverpool, United Kingdom

Coffee Break: 10:30–11:00

11:00–11:30 Modelling endogenous regional employment performance in Australia
Bob STIMSON, Univ. Melbourne, Australia

11:30–12:00 The post-urban world: How we got there and where we are going
Hans WESTLUND, KTH Royal Inst. Technology, Sweden

12:00–12:30 Summary & Discussion of the ABC (Advanced Brainstorm Carrefour)
Peter NIJKAMP, JADS, The Netherlands, Karima KOURTIT, JADS & Eindhoven Univ. Technology, The Netherlands, Neil REID, Univ. of Toledo, Ohio, USA, and Roger R. STOUGH, George Mason Univ., Arlington, Virginia, USA
Sunday, 3:30–5:15 PM  
Grand Ballroom

The 9th Annual Lay James Gibson Opening Session

Chair:
Lay James GIBSON, Univ. Arizona, Tucson, USA  
and 39th WRSA President (1998–1999)

Automated Transport Technology,  
Regional Economies, and Land Use  
Ralph MCLAUGHLIN,  
CoreLogic, Washington D.C., USA

Discussant:  
Claude GRUEN, GRUEN,  
GRUEN + ASSOCIATES,  
San Francisco, California, USA

Sunday, 5:30–7:00 PM  
Welcoming Reception  
featuring Wine Tasting Event  
Vintner’s Ballroom

Monday, February 11

8:00 AM–12:15 PM (and 1:00–5:30 PM),  
Registration  (Grand Ballroom Foyer)

8:30–10:00 AM, WRSA Board Meeting  By invitation only  
(Howell Mountain)

8:30 AM–12:00 PM, Concurrent Sessions:
1A Jobs and Economic Development (Syrah)  
1B Community Development Issues (Merlot)  
1C Minority & Inequality (Cabernet)  
1D Economic Impact (Zinfandel)  
1E Agglomeration, Human Capital &  
Innovation (Stag’s Leap)  
1F The Keith Schwer Memorial Western State  
Economic Outlook (I) –  starts at 10:30 AM  
(Howell Mountain)

10:00–10:30 AM, Coffee Break  (Grand Ballroom Foyer)

12:00–1:30 PM, Lunch Break  (On your own this day)

12:10–1:20 PM, Annals of Regional Science Editorial  
Board Meeting  By invitation only  (Atlas Peak)

1:00–5:30 PM, Registration Continues  
(Grand Ballroom Foyer)

1:30–5:00 PM, Concurrent Sessions:
2A Local Public Finance (Syrah)  
2B Infrastructure & Development (Merlot)  
2C Public Health (Cabernet)  
2D Spatial Statistics & GIS (I) (Zinfandel)  
2E Population & Mobility (Stag’s Leap)  
2F The Keith Schwer Memorial Western State  
Economic Outlook (II) – (Howell Mountain)

3:00–3:30 PM, Coffee Break  (Grand Ballroom Foyer)

5:15–7:30 PM, 7th Annual Getis-Ord Lecture in  
Spatial Analysis  (Napa Valley Ballroom)

7:30–8:30 PM, Getis-Ord Lecture Reception  
(Vintner's Ballroom)

Monday, 8:30–10:00 AM  
WRSA Board Meeting  
(By invitation only)  
Howell Mountain

Convenor: Jaewon Lim,  
Univ. Nevada, Las Vegas, Nevada, USA,  
and WRSA Executive Director
Monday, 8:30 AM–12:00 PM
Paper Session 1A ~ Syrah
Jobs and Economic Development
Chair: Asao ANDO, Tohoku Univ., Japan
8:30–9:15
Proposing a new categorization approach for routine, non-routine, and manual occupations with analysis of polarization phenomena in Japan
Osamu SUGIMOTO, Josai Univ., Japan
Discussant: Hyunjee Lee, Seoul National Univ., Korea
9:15–10:00
Governance and distance: Evolution of labor market institutions
Masaki NAKABAYASHI, Univ. Tokyo, Japan
Discussant: Charlie KARLSSON, Jönköping International Business School, Sweden
Coffee Break: 10:00–10:30
10:30–11:15
Import competition, job polarization, and geography: Plant-level skill demand in the U.S.
Mina KIM, Bureau of Labor Statistics, Washington D.C., USA, Jooyoun PARK, Kent State Univ., Ohio, USA
Discussant: Anne ANDERS, Univ. Houston, Texas, USA
11:15–12:00
Do robots increase wages? A topic modeling approach at individual and metropolitan levels
Nancye LEIGHT, Heonyeong LEE, and Benjamin R. KRAFT, Georgia Inst. Technology, Atlanta, USA
Discussant: Koichi FUKUMURA, Univ. Tokyo, Japan

Monday, 8:30 AM–12:00 PM
Paper Session 1B ~ Merlot
Community Development Issues
Chair: Stephan GOETZ, Pennsylvania State Univ., University Park, USA
8:30–9:15
Against survivorship bias: Are there lessons regional economists can learn from small and economically lagging U.S. counties?
Timothy SLAPER, Indiana Univ., Bloomington, USA
Discussant: Yuko AKUNE, Nihon Univ., Japan
9:15–10:00
Social network analysis on the development in social farming: A case of Garfagnana, Italy
Yaerin YOON and Kwansoo KIM, Seoul National Univ., Korea
Discussant: Ethan GRUMSTRUP, Univ. Nevada, Reno, USA
Coffee Break: 10:00–10:30
10:30–11:15
Template-based software architecture for modular and reproducible urban modeling
Samuel MAURER and Paul WADDELL, Univ. California, Berkeley, USA
Discussant: Pengyu ZHU, Univ. Hong Kong, China
11:15–12:00
Regional knowledge level and economic resilience
Rui YAN and Timothy SLAPER, Indiana Univ., Bloomington, USA
Discussant: Jae Hong KIM, Univ. California, Irvine, USA

Monday, 8:30 AM–12:00 PM
Paper Session 1C ~ Cabernet
Minority & Inequality
Chair: Juan Carlos LOPEZ, Univ. Denver, Colorado, USA
8:30–9:15
Estimation of life satisfaction and development of welfare policy using panel welfare data
Deokho CHO, Changwhan YEO, and Yoonhee SEO, Daegu Univ., Korea
Discussant: Richard GEARHART, California State Univ., Bakersfield, USA
9:15–10:00
Recruitment of child soldiers in Colombia: a spatial approach
Juan SAYAGO-GOMEZ, Universidad Icesi, Colombia
Discussant: Yong KIM, Purdue Univ., West Lafayette, Indiana, USA
10:30–11:15
Hate crimes and minority owned businesses
Karl GEISLER, Idaho State Univ., Pocatello, USA, Carl E. ENOMOTO and Theophilus DJABA, New Mexico State Univ., Las Cruces, USA
Discussant: Karima KOURTIT, JADS & Eindhoven Univ. Technology, The Netherlands
11:15–12:00
The bottom, the typical, and the top of the income distribution in South Korea: A quantile regression analysis
Yuri MANSURY, Illinois Inst. Technology, Chicago, USA, and Jae Beum CHO, Indiana Univ., Bloomington, USA
Discussant: Joe FRANCIS, Cornell Univ., Ithaca, New York, USA

Monday, 8:30 AM–12:00 PM
Paper Session 1D ~ Zinfandel
Economic Impact
Chair: Adam ROSE, Univ. Southern California, Los Angeles, USA
8:30–9:15
An economic impact analysis of oil and natural gas development in the Permian Basin
Haoying WANG, New Mexico Tech, Socorro, USA
Discussant: Michael BETZ, Ohio State Univ., Columbus, USA
9:15–10:00
Roads and the geography of economic activities in Mexico
Brian BLANKESPOOR, Théophile BOUGNA, and Harris SELOD, World Bank, Washington, DC, USA, and Rafael GARDUNO-RIVERA, CIDE & Universidad Panamericana, Mexico
Discussant: Qiao WU, Univ. Southern California, Los Angeles, USA
Coffee Break: 10:00–10:30
10:30–11:15
Oil prices, the housing market and spillover effects: Evidence from California’s central valley
Nyakundi MICHEKKA, California State Univ., Bakersfield, USA and Yiannis AMPATZIDIS, Univ. Florida, Gainesville, USA
Discussant: Seva RODNYANSKY, Univ. California, Berkeley, USA
11:15–12:00
**Parallel imports in large developing countries**
Dao-Zhi ZENG, Tohoku Univ., Japan
Discussion: Mehmet TOSUN, Univ. Nevada, Reno, USA

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**Notes on Session Format and Etiquette**

- Per WRSA custom, each paper is allocated 45 minutes of Program time, inclusive of discussion.
- Authors should plan on presentations of approximately 25–30 minutes.
- Discussants should prepare about 5–10 minutes of remarks, allowing at least 10 minutes for questions from, and open discussion with, session attendees.
- Participants: Please arrive at your session 10 minutes early to make A/V preparations (i.e., load presentations onto a laptop).
- At least one of the participants needs to bring a laptop for use by presenters in the session.
- Chairs: Please do not change the order of presentations listed in the program, and please adhere to the scheduled times.
- As a courtesy to other presenters, all participants are asked to stay for the entire session. Thanks!

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Monday, 8:30 AM–12:00 PM
**Paper Session 1E ~ Stag's Leap**
**Agglomeration, Human Capital & Innovation**
Chair: Mark PARTRIDGE, Ohio State Univ., Columbus, USA

8:30–9:15
**Premium on self-employment experience for skilled and unskilled workers**
Johan KLAESSON, Johan E. EKLUND, and Emma LAPPI, Jönköping International Business School, Sweden
Discussion: Man-Keun KIM, Utah State Univ., Logan, USA

9:15–10:00
**Do dynamic business environments differentially attract high- and low-skill labor force participants? Evidence from the NLSY97**
Sydney SCHREINER, Ohio State Univ., Columbus, USA
Discussion: Oudom HEAN, Ohio State Univ., Columbus, USA

Coffee Break: 10:00–10:30

10:30–11:15
**Regional, cultural and institutional factors which affect the formation of human capital in the modern university**
Michael FARRELL, Univ. Quebec, Québec City, Canada
Discussion: Ingrid R. PRUCHA, Univ. Maryland, College Park, USA

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Monday, 8:30 AM–12:00 PM
**Paper Session 1F ~ Howell Mountain**
**The Keith Schwer Memorial Western State Economic Outlook I: Will the Recovery Ever End?**
Chair: Richard R WOBBEKIND, Univ. Colorado, Boulder, USA

10:30–11:00
**Arizona**
George HAMMOND, Univ. Arizona, Tucson, USA

11:00–11:30
**Utah**
Juliette TENNERT, Univ. Utah, Salt Lake City, USA

11:30–12:00
**Colorado**
Richard R. WOBBEKIND, Univ. Colorado, Boulder, USA

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Monday, 12:00–1:30 PM
**Lunch Break** (On your own this day)
Monday, 1:30 PM–5:00 PM
Paper Session 2B ~ Merlot
Infrastructure & Development
Chair: Rick CHURCH,
Univ. California, Santa Barbara, USA

1:30–2:15
Broadband and narrowband internet in Nepal
Jitendra PARAJULI and Kingsley HAYNES, George Mason Univ.,
Arlington, Virginia, USA
Discussant: Bob STIMSON, Univ. Melbourne, Australia

2:15–3:00
Is higher-quality land developed earlier?
Juan Carlos LOPEZ, Univ. Denver, Colorado, USA and Richard
ARNOTT, Univ. California, Riverside, USA
Discussant: Ina BLIND, Uppsala Univ., Sweden

Coffee Break: 3:00–3:30

3:30–4:15
Seoul as an urban empire: Evidence from spatial interaction models
John CARRUTHERS and Su-Jung LEE, George Washington Univ.,
Washington DC, USA
Discussant: Myounggu KANG, Univ. Seoul, Korea

4:15–5:00
Rail transit expansion and its impact on urban infill dynamics
Jae Hong KIM and Douglas HOUSTON, Univ. California, Irvine,
USA, Ashley (Wan-Tzu) LO, Tohoku Univ., Japan, and Jaewoo
CHO, Korea Advanced Inst. Science and Technology, Korea
Discussant: Meng YU, Univ. Hong Kong, China

Monday, 1:30 PM–5:00 PM
Paper Session 2C ~ Cabernet
Public Health
Chair: Brian H.S. KIM, Seoul National Univ., Korea

1:30–2:15
Estimating the effect of Colorado’s recreational marijuana legalization in 2012 on non-marijuana related drug abuse violations: A synthetic control method analysis
Qiao WU and Yougeng LU, Univ. Southern California, Los Angeles, USA
Discussant: Timothy SLAPER, Indiana Univ., Bloomington, USA

2:15–3:00
Shale boom, drug bust: Did the oil and gas boom dampen or exacerbate the drug crisis in rural American communities?
Michael BETZ and Lauren E. JONES, Ohio State Univ.,
Columbus, USA
Discussant: Donghwan AN, Seoul National Univ., Korea

Coffee Break: 3:00–3:30

3:30–4:15
Appalachian deliverance: The impact of provider density on opioid prescribing rates
Richard GEARHART and Nyakundi MICHEKA, California State Univ., Bakersfield, USA, and Anne ANDERS, Univ. Houston, Texas, USA
Discussant: Yuri MANSURY, Illinois Inst. Technology, Chicago, USA

4:15–5:00
Online personal health research: Urban-rural participatory diversity
Peter STENBERG, USDA Economic Research Service,
Washington DC, USA
Discussant: Deokho CHO, Daegu Univ., Korea

Monday, 1:30 PM–5:00 PM
Paper Session 2D ~ Zinfandel
Spatial Statistics & GIS (I)
Chair: Irene FARAH, Univ. Chicago, Illinois, USA

1:30–2:15
Fast MCMC estimation of multiple W-matrix spatial regression models and Metropolis-Hastings Monte Carlo log marginal likelihoods
James LESAGE, Texas State Univ., San Marcos, USA
Discussant: Sergio REY, Univ. California, Riverside, USA

2:15–3:00
Simultaneous equations models with higher-order spatial or social network interactions
Ingmar R. PRUCHA, Univ. Maryland, College Park, USA
Discussant: Peter ROGERSON, Univ. Buffalo, New York, USA

Coffee Break: 3:00–3:30

3:30–4:15
Comparing spatial patterns of sole proprietorship and corporate payday lenders in Seoul, Korea
Hyounju Kim, Bokyong LEE, and So Young SOHN, Yonsei Univ., Korea
Discussant: Peter BATEY, Univ. Liverpool, United Kingdom

4:15–5:00
EVALUATING MICROENTERPRISE DEFINITIONS TO MEASURE MICROENTERPRISE ACTIVITY IN THE US.
Sergio CONTRERAS, Univ. Illinois, Urbana-Champaign, USA
Discussant: Maria IKEGAWA, Policy Research Inst., MAFF, Japan

Monday, 1:30 PM–5:00 PM
Paper Session 2E ~ Stag's Leap
Population & Mobility
Chair: David A. PLANE, Univ. Arizona, Tucson, USA

1:30–2:15
Local industrial cohesion and its effects on economic performance and business dynamics in US counties
Alexandra TSVETKOVA, OECD, Italy and Mark PARTRIDGE,
Ohio State Univ., Columbus, USA
Discussant: Asao ANDO, Tohoku Univ., Japan

2:15–3:00
Temporary migration as a strategy against weather shocks: Evidence from rural India
Yong KIM, Juan P. SESMERO, and Brigitte S. WALTORF, Purdue Univ., West Lafayette, Indiana, USA
Discussant: Mark BROWN, Statistics Canada, Ottawa, Ontario, Canada

Coffee Break: 3:00–3:30
Monday, 5:15–7:30 PM
Napa Valley Ballroom

7th Annual Getis-Ord Lecture in Spatial Analysis
Chair: Arthur GETIS, San Diego State Univ., California, USA

Scaling Up Urban Models: Extending Spatial Systems to Embrace Hierarchies of Interaction
Michael BATTY, Univ. College London, United Kingdom

Discussant: Peter BATEY, Univ. Liverpool, United Kingdom

A reception will follow the lecture;
All session attendees welcome!

Tuesday, February 12

8:00 AM–12:15 PM (and 2:15–6:00 PM),
Registration (Grand Ballroom Foyer)

8:30 AM–12:00 PM, Concurrent Sessions:
3A TRSA-Special Academic Session – starts at 8:00 AM
(Syrah)
3B Housing & Real Estate (Merlot)
3C Agriculture & Regional Development (Cabernet)
3D Spatial Statistics & GIS (II) (Zinfandel)
3E Migration & Labor Market (Atlas Peak)
3F Environmental Issues (I) (Castle Peak)

10:00–10:30 AM, Coffee Break (Grand Ballroom Foyer)

12:15–2:15 PM, Annual Banquet Luncheon
(Napa Valley Ballroom)

2:15–6:00 PM Registration Continues
(Grand Ballroom Foyer)

2:30–6:00 PM, Concurrent Sessions:
4A Input-Output Analysis (Syrah)
4B Remote Regions (I):
   Economics, Politics and Resource Development (Merlot)
4C Transportation & Urban Forms (Cabernet)
4D Regional Economic Development (Zinfandel)
4E Migration & Human Capital (Atlas Peak)
4F Environmental Issues (II) (Castle Peak)

4:00–4:30 PM, Coffee Break (Grand Ballroom Foyer)

6:15–7:45 PM, President’s Reception
(Napa Valley Ballroom)

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Submiting Papers to:

The Annals of Regional Science

The Annals of Regional Science

Annual Meeting participants are cordially invited
to submit their papers to WRSA’s official journal,
The Annals of Regional Science.
The coeditors, Martin Andersson, Brian H.S. Kim
and Janet Kohlhase, are here in Napa and will be
happy to discuss potential submissions.
Tuesday, 8:00 AM–12:00 PM

Paper Session 3A ~ Syrah

The Regional Science Academy—Special Academic Session (SAS)

8:00–8:10
Welcome Remark
Hans WESTLUND, KTH Royal Inst. Technology, Sweden

Signatures of Regional Science I
The Regional Science Academy (TRSA) Lecture Series: “The Voice of Regional Science”
Chair: Peter BATEY, Univ. Liverpool, United Kingdom

8:10–8:40
Digitization, age and entrepreneurship
Ting ZHANG, Univ. Baltimore, USA and Roger R. STOUGH, George Mason Univ., Arlington, Virginia, USA

8:40–9:10
Return of migrants and decontamination after the 2011 Fukushima nuclear power plant disaster
Shingo NAGAMATSU, Kansai Univ., Japan, Adam ROSE and Jonathan EYER, Univ. Southern California, Los Angeles, USA

9:10–9:40
Labour productivity, income and leisure
Peter NIJKAMP, Jheronimus Academy of Data Science (JADS), The Netherlands

9:40–10:10
Presentation of new book on ‘Modelling Aging and Migration Effects on Spatial Labor Markets’
Roger R. STOUGH, George Mason Univ., Arlington, Virginia, USA, Peter NIJKAMP, Jheronimus Academy of Data Science (JADS), The Netherlands, Karima KOURTIT, Jheronimus Academy of Data Science (JADS) & Eindhoven Univ. Technology, The Netherlands, and Uwe BLIEN, Inst. Labor Economics (IZA), Germany

Coffee Break: 10:10–10:30

Signatures of Regional Science II
The Regional Science Academy (TRSA) - Ex Libris Session
Chair: Hans WESTLUND, KTH Royal Inst. Technology, Sweden

10:30–11:30
Thinking about Walter Isard, Ben Stevens and Britt Harris
Peter GORDON, Univ. Southern California, Los Angeles, USA

Ben Higgins and regional science
Kingsley HAYNES, George Mason Univ. Arlington, Virginia, USA

Contributions of Lawrence Klein and Michael Mischaikow to regional science
Jack OSMAN, San Francisco State Univ., California, USA

Standing on the shoulders of giants
Arthur GETIS, San Diego State Univ., California, USA

Signatures of Regional Science III
The Regional Science Academy (TRSA) – Great Minds in Regional Science
Chair: Peter NIJKAMP, Jheronimus Academy of Data Science (JADS), The Netherlands

11:30–12:00
Ed Mills’ scholarship and relevance for regional science
Tschangho John KIM, Univ. Illinois, Urbana-Champaign, USA

Tuesday, 8:30 AM–12:00 PM

Paper Session 3B ~ Merlot

Housing & Real Estate
Chair: Thomas R HARRIS, Univ. Nevada, Reno, USA

8:30–9:15
Declining access to affordable low-Income housing due to middle-class competition: Evidence from US metropolitan areas, 2006 to 2016
JungHo PARK, Univ. Southern California, Los Angeles, USA
Discussant: Sutee ANANTSUKSOMSRI, Chulalongkorn Univ., Thailand

9:15–10:00
The physical legacy of racism: How redlining cemented the modern built environment
Seva RODNYANSKY, Univ. California, Berkeley, USA, Anthony W. ORLANDO, California Polytechnic State Univ., Pomona, USA, and Brian Y. AN, Univ. Southern California, Los Angeles, USA
Discussant: Samuel MAURER, Univ. California, Berkeley, USA

Coffee Break: 3:00–3:30

10:30–11:15
Local house price diffusion during the boom, bust, and recovery: Evidence from Los Angeles
Thom MALONE, Georgia Inst. Technology, Atlanta, USA and Richard PEISER, Harvard Univ., Cambridge, Massachusetts, USA
Discussant: Yuting HOU, Singapore Univ. Technology and Design, Singapore

11:15–12:00
Parent and children homeownership: Evidence from tenure conversions in Stockholm
Ina BLIND and Matz DAHLBERG, Uppsala Univ., Sweden
Discussant: Juan SAYAGO-GOMEZ, Universidad Icesi, Colombia

Tuesday, 8:30 AM–12:00 PM

Paper Session 3C ~ Cabernet

Agriculture & Regional Development
Chair: Sandy DALL’ERBA, Univ. Illinois, Urbana-Champaign, USA

8:30–9:15
An analysis of climate change effects on risk and spatial distribution of rice production in South Korea
Yongjoon KIM, Kwansoo KIM, and Donghwan AN, Seoul National Univ., Korea
Discussant: Karelys GUZMAN, Univ. Illinois, Urbana-Champaign, USA

9:15–10:00
The trends in farm and nonfarm employment in the U.S.: A granger causality study with nonstationary panels
Zheng TIAN and Stephan GOETZ, Pennsylvania State Univ., University Park, USA
Discussant: Eric J. HEIKKILA, Univ. Southern California, Los Angeles, USA

Coffee Break: 10:00–10:30
10:30–11:15
The fall and rise of hops in American brewing
Neil REID, Univ. Of Toledo, Ohio, USA, Stephan GOETZ, Elizabeth DOBIS, Pennsylvania State Univ., University Park, USA, Paul GOTTLEB, Rutgers Univ., New Brunswick, New Jersey, USA, and Anil HIRA, Simon Fraser Univ. Vancouver, British Columbia, Canada
Discussant: Jooyoun PARK, Kent State Univ., Ohio, USA

11:15–12:00
Heterogeneity of producers in Japanese regional agriculture: Using microdata
Yuko AKUNE, Nihon Univ., Japan
Discussant: Kwansoo KIM, Seoul National Univ., Korea

Tuesday, 8:30 AM–12:00 PM
Paper Session 3D ~ Zinfandel
Spatial Statistics & GIS (II)
Chair: Ingmar R. PRUCHA,
Univ. Maryland, College Park, USA

8:30–9:15
Fishing for neighborhood trajectory patterns in the United States - a comparison of sequence analysis methods
Wei KANG, Sergio REY, Univ. California, Riverside, USA, Levi J. WOLF, Univ. Bristol, United Kingdom, Elijah KNAAP, and Su Y. HAN, Univ. California, Riverside, USA
Discussant: James LESAGE, Texas State Univ., San Marcos, USA

9:15–10:00
Current food accessibility problems in Japan: Using a food accessibility map based on the grid-square statistics of "2015 Population Census" and "Census of Commerce"
Maria IKEGAWA, Policy Research Inst., MAFF, Japan
Discussant: Rick CHURCH, Univ. California, Santa Barbara, USA

10:30–11:15
Inferential statistics with spatial data
Peter ROGERSON, Univ. Buffalo, New York, USA
Discussant: Sergio CONTRERAS, Univ. Illinois, Urbana-Champaign, USA

11:15–12:00
Mexico's distal effects on food insecurity: A geospatial analysis
Irene FARAH, Univ. Chicago, Illinois, USA
Discussant: Nij TONTISIRIN, Thammasat Univ., Thailand

Tuesday, 8:30 AM–12:00 PM
Paper Session 3E ~ Atlas Peak
Migration & Labor Market
Chair: Stein ØSTBYE,
UiT The Arctic Univ. Norway, Norway

8:30–9:15
Employment patterns of migrants and residents in the Buffalo-Niagara region
Sharmistha BAGCHI-SEN, Torsten SCHUNDE, and Xiaonan TAI, Univ. Buffalo, New York, USA
Discussant: Olle WESTERLUND, Umeå Univ., Sweden

9:15–10:00
Labour mobility: The roles of intra- and interfirm migration in Canada
Mark BROWN, Statistics Canada, Ottawa, Ontario, Canada, Bruce NEWBOLD, McMaster Univ., Hamilton, Ontario, Canada, Jesse TWEEDLE, Statistics Canada, Ottawa, Ontario, Canada
Discussant: David A. PLANE, Univ. Arizona, Tucson, USA

Coffee Break: 10:00–10:30

10:30–11:15
Minimum wage competition
Koichi FUKUMURA and Atsushi YAMAGISHI, Univ. Tokyo, Japan
Discussant: Michel DIMOU, Univ. Toulon, France

11:15–12:00
Transient solutions to a two-country dynamic model considering work skills and migration
Asao ANDO, Tohoku Univ., Japan and Tomohiro YOKOYAMA, Tohoku Electric Power Co., Japan
Discussant: Sydney SCHREINER, Ohio State Univ., Columbus, USA

Tuesday, 8:30 AM–12:00 PM
Paper Session 3F ~ Castle Peak
Environmental Issues (I)
Chair: Janet KOHLHASE, Univ. Houston, Texas, USA

8:30–9:15
Do factors contributing to appearance and success of conservation referenda in the West differ from those found in other regions?
Chad CHRIESTENSON, Univ. Wisconsin, Madison, USA, and Dawn THILMANY, Colorado State Univ., Fort Collins, USA
Discussant: Soogwan DOH, Daegu Catholic Univ., Korea

9:15–10:00
Effect of the national-level spatial distribution of cities on national transport CO2 emissions
Jaebin LIM, Land and Housing Inst., Korea, Myounggu KANG, and Changmu JUNG, Seoul National Univ., Korea
Discussant: Quan YUAN, Univ. North Carolina, Chapel Hill, USA

Coffee Break: 10:00–10:30

10:30–11:15
Localized environmental Kuznets curves: A spatial panel analysis among US Countities
Matt GNAGEY, Weber State Univ., Ogden, Utah, USA, and Steven DABB, Utah State Univ., Logan, USA
Discussant: Brian H.S. KIM, Seoul National Univ., Korea

11:15–12:00
Impacts of air pollution on urban housing prices in China
Yifu OU and Kyung-Min NAM, Univ. Hong Kong, China
Discussant: Folke SNICKARS, KTH Royal Inst. Technology, Sweden
WRSA Meeting History

How many have you attended?

58th WRSA Meeting
5th Annual Meeting

How many have you attended?

WRSA Meeting History

58th  WRSA 5th Annual Meeting
10th  Monterey Plaza Hotel, Monterey, CA (2011)
9th  Hilton Sedona, Sedona, AZ (2010)
8th  Silverado Resort, Napa, CA (2009)
7th  Hilton Waikoloa Village Resort, Hawaii, HI (2008)
6th  Hyatt Regency, Newport Beach, CA (2007)
5th  La Fonda, Santa Fe, NM (2006)
4th  Marriott Wailea Resort, Maui, HI (2005)
2nd  Hyatt Regency Monterey, Monterey, CA (2002)
1st  Hyatt Regency Islandia, San Diego, CA (2001)

The 60 WRSA Presidents

1st  1960–1961 William Golder
2nd  1961–1962 Morgan D. Thomas
3rd  1962–1963 James N. Tattersall
4th  1963–1964 William S. Peters
5th  1964–1965 John W. Dyckman
7th  1966–1967 Fred E. Case
8th  1967–1968 Paul F. Wendt
9th  1968–1969 Harold L. Buma
10th  1969–1970 Bernard Udis
12th  1971–1972 Anthony H. Pascal
13th  1972–1973 Donald A. Watson
14th  1973–1974 Charles L. Leven
15th  1974–1975 Shelly Mark
16th  1975–1976 Frank G. Mittelbach
17th  1976–1977 Martin Beckmann
18th  1977–1978 Parviz Copes
19th  1978–1979 David Seymour
20th  1979–1980 Werner Hirsch
21st  1980–1981 Lee Attaway
22nd  1981–1982 Niles Hansen
23rd  1982–1983 Sol Rabin
24th  1983–1984 Robert Keyes
25th  1984–1985 Nina Gruen
26th  1985–1986 Jack Knetsch
27th  1986–1987 Gunter Schramm
28th  1987–1988 Bernard Malamud
29th  1988–1989 Harry W. Richardson
30th  1989–1990 Paul E. Polzin
31st  1990–1991 Michael J. Greenwood
33rd  1992–1993 Theodore Lane
34th  1993–1994 Richard L. Morrill
36th  1995–1996 Antoine S. Baillie
37th  1996–1997 Jon R. Miller
39th  1998–1999 Lay James Gibson
40th  1999–2000 Arthur Getis
41st  2000–2001 John M. Quigley
42nd  2001–2002 Brenda Moscove
43rd  2002–2003 Roger Stough
44th  2003–2004 Koichi Mera
45th  2004–2005 Juanita Liu
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50th  2009–2010 David W. Holland
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52nd  2011–2012 Warren Gill
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55th  2014–2015 K. Bruce Newbold
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57th  2016–2017 David A. Plane
58th  2017–2018 Alan Murray
59th  2018–2019 Matthias Rath
60th  2019–2019 Genevieve Giuliano

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58th  2017–2018 Alan Murray
59th  2018–2019 Matthias Rath
60th  2019–2019 Genevieve Giuliano
Tuesday, 12:15–2:15 PM

Annual Banquet Luncheon
Napa Valley Ballroom
Chair: David Plane
Univ. Arizona, Tucson, USA
and 57th WRSA President (2016–2017)

Announcements:
Jaewon Lim, WRSA Executive Director

The 23rd Springer-Verlag Prize:
Martin Andersson, Brian H.S. Kim and Janet Kohlhase
Editors, The Annals of Regional Science

The 33rd Charles M. Tiebout Prize:
Presented by: David Plane
Chair 2018–2019 Reading Committee
57th WRSA President (2016–2017)

Presidential Address:
Agglomeration Economies and Evolving Urban Form
Genevieve Giuliiano, 60th WRSA President (2019-2020)

Discussant:
Peter Gordon
Univ. Southern California, Los Angeles, USA
and 59th WRSA President (2012-2013)

Many Thanks to the 2018–2019 Program Committee!

Mark Brown, Statistics Canada
John Carruthers, George Washington Univ.
Sandy Dall’Erba, Univ. Illinois
Alessandra Faggian, Gran Sasso Science Inst.
Karl Geisler, Idaho State Univ.
Lee Huskey, Univ. Alaska
Randy Jackson, West Virginia Univ.
Jaehong Kim, Univ. California, Irvine
Gordon Mulligan, Univ. Arizona
Alan Murray, Univ. California, Santa Barbara
Bruce Newbold, McMaster Univ.
David Plain, Univ. Arizona
Greg Protasel, Univ. Alaska
Serge Rey, Univ. California, Riverside
Daoqin Tong, Arizona State Univ.
Hans Westlund, KTH Royal Inst. Technology
Richard Wobbekind, Univ. Colorado, Boulder

Co-Chairs:
Matthias Ruth, Northeastern Univ.
Genevieve Giuliiano, Univ. Southern California

Chair:
Jaewon Lim, Univ. Nevada, Las Vegas

Western Regional Science Association

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Executive Director:
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Terry Clower, Lay James Gibson, Jaewon Lim, David Plane, Roger Stough

WRSA’s NARSC Councilor:
Jaewon Lim

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R. Pete Parcells, Whitman College
Daoqin Tong, Arizona State Univ.
Jouke van Dijk, University of Groningen

Fellows

Antoine Baily, University of Geneva
Arthur Getis, San Diego State University
Lay James Gibson, University of Arizona
Michael Greenwood, Colorado University
Kingsley Haynes, George Mason University
Geoffrey J.D. Hewings, University of Illinois
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Robert Monahan, Western Washington University
Richard Morrill, University of Washington
Gordon Mulligan, University of Arizona
Jack Osman, San Francisco State University
David Plane, University of Arizona
Harry Richardson, Autonomous Univ. of Mexico
Roger Stough, George Mason University
Hans Westlund, KTH Royal Inst. Technology

*ex officio, Annals editors
Tuesday, 2:30 PM–6:00 PM  
**Paper Session 4A ~ Syrah**  
*Input-Output Analysis*  
Chair: Geoffrey J.D. HEWINGS,  
Univ. Illinois, Urbana-Champaign, USA

2:30–3:15  
*The socioeconomics of mining operations in Kiruna Sweden - an impact analysis of a close down*  
Folke SNICKARS, KTH Royal Inst. Technology, Sweden  
Discussant: Euijune KIM, Seoul National Univ., Korea

3:15–4:00  
*Selling Utah: How much the "Mighty 5" helps boost tourism and Utah economy?*  
Tatiana DRUGOVA, Man-Keun KIM, and Paul M. JAKUS, Utah State Univ., Logan, USA  
Discussant: Nyakundi MICHIEKA, California State Univ., Bakersfield, USA  
**Coffee Break: 4:00–4:30**

4:30–5:15  
*Modeling the local input-output network using county-level production and consumption estimates, and national input-output table*  
Yicheol HAN and Stephan GOETZ, Pennsylvania State Univ., University Park, USA  
Discussant: Dao-Zhi ZENG, Tohoku Univ., Japan

5:15–6:00  
*The spatial structure of cluster interdependencies in China Greater Bay area*  
Meng YU, Yue WANG, and Xingjian LIU, Univ. Hong Kong, China  
Discussant: Rafael GARDUNO-RIVERA, CIDE & Universidad Panamericana, Mexico

Tuesday, 2:30 PM–6:00 PM  
**Paper Session 4B ~ Merlot**  
*Remote Regions (I): Economics, Politics and Resource Development*  
Chair: Chris SOUTHCOTT,  
Lakehead Univ., Orillia, Ontario, Canada

2:30–3:15  
*The developing northern Australia agenda: A “down south” fix for the problems ‘up north’?*  
Andrew TAYLOR, James THURMER, Charles Darwin Univ., Australia, Anita MAERTENS, Australia, Northern Territory Government, David KARACSONYI, Charles Darwin Univ., Australia  
Discussant: Mouhcine GUETTABI, Univ. Alaska, Anchorage, USA

3:15–4:00  
*The development effect of the Faro mine: Revenues, leakages, and structural change*  
Lee HUSKEY, Univ. Alaska, Anchorage, USA, and Chris SOUTHCOTT, Lakehead Univ., Orillia, Canada  
Discussant: Rasmus Ole RASMUSSEN, Nordic Centre for Spatial Development (NORDREGIO), Sweden  
**Coffee Break: 4:00–4:30**

Tuesday, 2:30 PM–6:00 PM  
**Paper Session 4C ~ Cabernet**  
*Transportation & Urban Forms*  
Chair: Tschangho John KIM,  
Univ. Illinois, Urbana-Champaign, USA

2:30–3:15  
*Agglomeration near and far: San Francisco and Los Angeles metropolitan areas*  
Peter GORDON, Univ. Southern California, Los Angeles, USA, and John CHO, Southern California Assoc. Governments, Los Angeles, USA  
Discussant: Yeol Choi, Pusan National Univ., Korea

3:15–4:00  
*Impacts of severe weather events on high-speed rail and aviation delays*  
Zhenhua CHEN and Yuxuan WANG, Ohio State Univ., Columbus, USA  
Discussant: Qisheng PAN, Texas Southern Univ., Houston, USA  
**Coffee Break: 4:00–4:30**

4:30–5:15  
*Polycentric urban form and non-work travel in Singapore: A focus on seniors*  
Yuting HOU, Singapore Univ. Technology and Design, Singapore  
Discussant: Zhenhua CHEN, Ohio State Univ., Columbus, USA

5:15–6:00  
*Understanding the Weber location paradigm*  
Rick CHURCH, Univ. California, Santa Barbara, USA  
Discussant: Neil REID, Univ. of Toledo, Ohio, USA

Tuesday, 2:30 PM–6:00 PM  
**Paper Session 4D ~ Zinfandel**  
*Regional Economic Development*  
Chair: Peter ROGERSON, Univ. Buffalo, New York, USA

2:30–3:15  
*Neighborhood characteristics and video gambling terminal placement and spending in Illinois*  
Ethan GRUMSTRUP and Mark NICHOLS, Univ. Nevada, Reno, USA  
Discussant: Osamu SUGIMOTO, Josai Univ., Japan
3:15–4:00

**Ranch and county level impacts of alternative public land grazing policies in Elko County, Nevada**

Thomas R HARRIS and Ethan GRUMSTRUP, Univ. Nevada, Reno, USA

Discussant: So Young SOHN, Yonsei Univ., USA

Coffee Break: 4:00–4:30

4:30–5:15

**Corporate social responsibility and poverty alleviation: A case study of Wanda Danzhai village**

Eric J. HEIKKILA, Manita RAO, and Jingwen ZHANG, Univ. Southern California, Los Angeles, USA

Discussant: Thomas R HARRIS, Univ. Nevada, Reno, USA

5:15–6:00

**Land value capture as a funding source for public transport: A case study of the Bangkok metropolitan region**

Nij TONTISIRIN, Thammasat Univ., Thailand and Sutee ANANTSUKSOMSRI, Chulalongkorn Univ., Thailand

Discussant: Thom MALONE, Georgia Inst. Technology, Atlanta, USA

**Tuesday, 2:30 PM–6:00 PM**

**Paper Session 4F ~ Castle Peak Environmental Issues (II)**

Chair: John CARRUTHERS,

George Washington Univ., Washington DC, USA

2:30–3:15

**Environmental justice in warehousing location across cities: Institutional perspectives**

Quan YUAN, Univ. North Carolina, Chapel Hill, USA

Discussant: Matt GNAGEY, Weber State Univ., Ogden, Utah, USA

3:15–4:00

**Special analysis of social capital and community resilience for earthquake waste management**

Kiyomi KAWAMOTO, Toyo Univ., Japan and Eric YAMASHITA, Univ. Hawaii, Manoa, USA

Discussant: Adam ROSE, Univ. Southern California, Los Angeles, USA

Coffee Break: 4:00–4:30

4:30–5:15

**Causal relationship of the particulate matter policy by system thinking of specialists opinion: Case study of Korea**

HyunJi LEE, Seoul National Univ., Korea, Insu CHANG, Korea Inst. Health and Social Affairs, Korea, and Brian H.S. KIM, Seoul National Univ., Korea

Discussant: Sandy DALL’ERBA, Univ. Illinois, Urbana-Champaign, USA

5:15–6:00

**Understanding the problems of anaerobic digestion deployment in different regions: consultation, confrontation and forms of proximity**

Sebastien BOURDIN, Ecole de Management de Normandie, France

Discussant: Kyung-Min NAM, Univ. Hong Kong, China

4:30–5:15

**Innovative new firms and human capital spillovers - a microgeographic analysis**


Discussant: Mina KIM, Bureau of Labor Statistics, Washington D.C., USA

5:15–6:00

**What explains the geography of start-up rates? -- New evidence from Sweden?**

Martin ANDERSSON, Blekinge Inst. Technology, Sweden, Niklas LAVESSON, Lund Univ., Sweden, and Mark PARTRIDGE, Ohio State Univ., Columbus, USA

Discussant: Min XIONG, Florida International Univ., Miami, USA

**Tuesday, 6:15–7:45 PM**

**International Ballroom**

**President’s Reception**

For all participants and accompanying persons

With the generous support of Northeastern University, Boston, Massachusetts, USA
Wednesday, February 13

8:00 AM–12:15 PM, Registration (Grand Ballroom Foyer)

8:30 AM–12:00 PM, Concurrent Sessions:
   5A Entrepreneurship & Economic Development (Syrah)
   5B Remote Regions (II): Governance, Culture, and Community Development (Merlot)
   5C Disaster, Infrastructure & Housing (Cabernet)

10:00–10:30 AM, Coffee Break (Grand Ballroom Foyer)

12:00–1:30 PM, Lunch Break (On your own this day)

1:30–5:00 PM, Concurrent Sessions:
   6A Location and Spatial Analysis (Syrah)
   6B Remote Regions (III): Economic Development and Regional Growth (Merlot)
   6C Agriculture & Sustainability (Cabernet)

3:00–3:30 PM, Coffee Break (Grand Ballroom Foyer)

(5:00 PM, End of Conference)

Wednesday, 8:30 AM–12:00 PM
Paper Session 5A ~ Syrah
Entrepreneurship & Economic Development
Chair: Martin ANDERSSON,
Blekinge Inst. Technology, Sweden

8:30–9:15
Mass entrepreneurship and innovation in China: An analysis of breadth and depth of China’s indigenous high-tech small businesses
Min XIONG and Shaoming CHENG, Florida International Univ., Miami, USA
   Discussant: Karl GEISLER, Idaho State Univ., Pocatello, USA

9:15–10:00
The income return to entrepreneurship - theoretical models and outcomes for Swedish regions
Björn HÅRSMAN, Royal Inst. Technology, Sweden
   Discussant: Michael FARRELL, Univ. Quebec, Québec City, Canada
   Coffee Break: 10:00–10:30

10:30–11:15
Social entrepreneurship and regional economic development:
Focusing on government-driven social enterprises in South Korea
Soogwan DOH, Daegu Catholic Univ., Korea, Duckhee JANG, Korea Inst. Ocean Science & Technology, Korea, and Hans WESTLUND, KTH Royal Inst. Technology, Sweden
   Discussant: Martin ANDERSSON, Blekinge Inst. Technology, Sweden
   Coffee Break: 10:00–10:30

11:15–12:00
Policy entrepreneurship and entrepreneurial orientation in vulnerable Swedish municipalities
Johan P. LARSSON and Lucia NALDI, Jönköping International Business School, Sweden, and Hans WESTLUND, KTH Royal Inst. Technology, Sweden
   Discussant: Rui YAN, Indiana Univ., Bloomington, USA

Wednesday, 8:30 AM–12:00 PM
Paper Session 5B ~ Merlot
Remote Regions (II): Governance, Culture, and Community Development
Chair: Greg PROTASEL, Univ. Alaska, Anchorage, USA

8:30–9:15
Adaptive capacity and resilient social-ecological systems: Theory and evidence from Alaska north slope communities
Matthew Berman, Univ. Alaska, Anchorage, USA
   Discussant: Andrew TAYLOR, Charles Darwin Univ., Australia

9:15–10:00
Gender perspectives on path dependency in contemporary development in Greenland
Rasmus Ole RASMUSSEN, Nordic Centre for Spatial Development (NORDREGIO), Sweden
   Discussant: Stein ØSTBYE, UiT The Arctic Univ. Norway, Norway
   Coffee Break: 10:00–10:30

10:30–11:15
Pyramid schemers: The Alaskan adventures of two great American fraudsters, Charles V. Bob and W.B. Foshay
Terrence COLE, Univ. Alaska, Fairbanks, USA
   Discussant: Lee HUSKEY, Univ. Alaska, Anchorage, USA

Wednesday, 8:30 AM–12:00 PM
Paper Session 5C ~ Cabernet
Disaster, Infrastructure & Housing
Chair: Kyung-Min NAM, Univ. Hong Kong, China

8:30–9:15
Megaregion truck flow estimation model
Qisheng PAN, Bumseok CHUN, and Zhonghua JIN, Texas Southern Univ., Houston, USA
   Discussant: Eric YAMASHITA, Univ. Hawaii, Manoa, USA

9:15–10:00
Characterization of frequent pedestrian-vehicle collision areas and surrounding walking environment for senior citizens - The case study of Seoul, South Korea
Hyunsoo KIM and Yeol CHOI, Pusan National Univ., Korea
   Discussant: John CARRUTHERS, George Washington Univ., Washington DC, USA

10:30–11:15
Economic consequences of the HayWired earthquake scenario
Ian SUE WING, Boston Univ., Massachusetts, USA, Dan WEI and Adam ROSE, Univ. Southern California, Los Angeles, USA
   Discussant: Kiyomi KAWAMOTO, Toyo Univ., Japan

10:30–11:15
A comparison of statistical and machine learning algorithms for predicting rents in the San Francisco Bay Area
Paul Waddell and Arezoo BESHARATI-ZADEH, Univ. California, Berkeley, USA
   Discussant: JungHo PARK, Univ. Southern California, Los Angeles, USA
Wednesday, 1:30 PM–5:00 PM
Paper Session 6A ~ Syrah
Location and Spatial Analysis
Chair: Johan KLAESSON, JIBS, Sweden

1:30–2:15
Phillip Sargent Florence: Pioneer Regional Scientist?
Peter BATEY, Univ. Liverpool, United Kingdom
Discussant: Hans WESTLUND, KTH Royal Inst. Technology, Sweden

2:15–3:00
Are Women Earning as much as Men?: Exploring Spatial and Temporal Trend of Gender Wage Gap in Architecture, Engineering, and Construction (AEC) Industry in the United States
Saba NIKKHAH MANESH, Binit Kumar SHRESTHA, Jaewon LIM, Jinouk CHOI, and Pramen SHRESTHA, Univ. Nevada, Las Vegas, USA
Discussant: Sameeksha DESAI, Kauffman Foundation, Kansas City, Missouri, USA

3:00–3:30
Coffee Break

3:30–4:15
Dynamics of peri-urban, the non-core areas: Along the spatial transition and multi-nuclei developments of Busan metropolitan city
Dong Hak LEE, Jinhyeok JANG, and Yeol CHOI, Pusan National Univ., Korea
Discussant: Johan KLAESSON, Jönköping International Business School, Sweden

4:15–5:00
Job loss and earnings -- heterogeneity in effects by spatial access to jobs
Olle WESTLUND, Kent ELIASSON, and Ingeborg WAERNBAUM, Umeå Univ. Sweden
Discussant: Sharmistha BAGCHI-SEN, Univ. Buffalo, New York, USA

Wednesday, 1:30 PM–5:00 PM
Paper Session 6B ~ Merlot
Remote Regions III:
The Changing Economic Geography of the North
Chair: Matthew BERMAN, Univ. Alaska, Anchorage, USA
1:30–2:15
A note on migration dynamics in new economic geography
Stein ØSTBYE, UiT The Arctic Univ. Norway, Norway
Discussant: Chris SOUTHCOTT, Lakehead Univ., Orillia, Ontario, Canada

2:15–3:00
The Strategic competitiveness of Alaska native regional corporations: The scramble for federal contract dollars
Greg PROTASEL, Univ. Alaska, Anchorage, USA
Discussant: James THURMER, Charles Darwin Univ., Australia

3:30–4:15
Local employment spillovers in resource harvest: Evidence from Alaska’s commercial fisheries
Brett WATSON, Mouhime GUETTABI, and Matthew REIMER, Univ. Alaska, Anchorage, USA
Discussant: Jan Yngve SAND, UiT The Arctic Univ. Norway, Norway

Coffee Break: 3:00–3:30

Wednesday, 1:30 PM–5:00 PM
Paper Session 6C ~ Cabernet
Agriculture & Sustainability
Chair: Sebastien BOURDIN, École de Management de Normandie, France
1:30–2:15
Sustainable practices diffusion in socio-ecological systems: The Gorutuba Irrigation Perimeter (Brazil) analysis
Rafael CAMPOS, Univ. Illinois, Urbana-Champaign, USA, Dênis CUNHA, Federal Univ. Viçosa, Brazil, Newton BUENO, FUCAPE Business School, Brazil
Discussant: Zheng TIAN, Pennsylvania State Univ., University Park, USA

2:15–3:00
Drought, intra-national trade and agricultural profit: Evidence from the U.S. agriculture
Sandy DALL’ERBA and Zhangliang CHEN, Univ. Illinois, Urbana-Champaign, USA
Discussant: R. Pete PARCELLS, Whitman College, Walla Walla, Washington, USA

Coffee Break: 3:00–3:30

3:00–3:45
The sensitivity of rice yield to weather variation in Colombia: a panel data approach over 1987–2016
Karelys GUZMAN, Univ. Illinois, Urbana-Champaign, USA
Discussant: Sebastien BOURDIN, École de Management de Normandie, France

4:15–5:00
Estimating economic impacts of irrigation water supply policy using synthetic control regions: A comparative case study
Cameron SPEIR, NOAA Fisheries, Santa Cruz, California, USA
Discussant: Rafael CAMPOS, Univ. Illinois, Urbana-Champaign, USA

And What About Next Year, You Ask?
Already thinking about WRSA 2020? For our 59th Annual Meeting, WRSA goes to Honolulu, HI. As you can see from our meeting history, we like Hawaii. We had 9 meetings in different islands of Hawaii since 1987, but it’s been 27 years since we had our last meeting in Honolulu on O‘ahu, Hawaii (1983, in fact)!
For next year’s conference, we head to the Hilton Hawaiian Village Waikiki Beach Resort conveniently located on the beautiful Waikiki Beach in Honolulu. WRSA hosts our 59th Annual Meeting as a joint meeting with 26th Pacific Regional Science Conference (PRSCO) meeting. Our meeting dates are Wednesday, March 18th to Saturday, the 21st. (Please remember that it will not be in February, instead we will meet in March of 2020!) Our room rate is $229/night (plus applicable taxes). Full meeting details will be shared in the months to come. We look forward to seeing your full papers submitted by October 15, 2019 and we look forward to welcoming you to Honolulu, Hawaii!
Program Participant Locator

Session assignments are listed following each participant’s name:

1A, 1B, 1C, 1D, 1E, 1F on Monday Morning
2A, 2B, 2C, 2D, 2E, 2F on Monday Afternoon
3A, 3B, 3C, 3D, 3E, 3F on Tuesday Morning
4A, 4B, 4C, 4D, 4E, 4F on Tuesday Afternoon
5A, 5B, 5C on Wednesday Morning
6A, 6B, 6C on Wednesday Afternoon

ABC1 = TRSA pre-WRSA ABD Workshop I
ABC2 = TRSA pre-WRSA ABD Workshop I
OS = Opening Session on Sunday Afternoon
WB = WRSA Board Meeting on Monday Morning
GO = Getis-Ord Lecture in Spatial Analysis
AL = Annual Banquet Luncheon on Tuesday

ABC1 = TRSA pre-WRSA ABD Workshop I
ABC2 = TRSA pre-WRSA ABD Workshop I
OS = Opening Session on Sunday Afternoon
WB = WRSA Board Meeting on Monday Morning
GO = Getis-Ord Lecture in Spatial Analysis
AL = Annual Banquet Luncheon on Tuesday

Roman typeface (regular font) indicates a paper author, panelist, or speaker; **Boldface** indicates a session chair; *Italics* indicate a paper discussant.

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You’ve been working hard to expand the scientific landscape and IMPLAN wants to make sure that it’s keeping pace to best serve you. This year during WRSA you can meet with IMPLAN developers in person to discuss what you would like to see and be able to do in IMPLAN. Go to the link below to reserve a time to meet at the IMPLAN booth. We’re all ears!

Reserve your timeslot at IMPLAN.com/WRSA.
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