



Western Regional Science Association

58th Annual Meeting

Napa Valley Marriott | Napa, California
February 10–13, 2019

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. Your 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 CO₂ 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



*For all participants and accompanying persons:
Everyone welcome!*



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: HyunJi 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

Nancey Green LEIGH, 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

Coffee Break: 10:00–10:30

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 MICHIEKA, 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

Discussant: Mehmet TOSUN, Univ. Nevada, Reno, USA



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

Discussant: 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

Discussant: 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

Discussant: Ingmar R. PRUCHA, Univ. Maryland, College Park, USA



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



Monday, 12:00–1:30 PM

Lunch Break (On your own this day)

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!*



Monday, 1:30 PM–5:00 PM

**Paper Session 2A ~ Syrah
Local Public Finance**

Chair: Lay James GIBSON,
Univ. Arizona, Tucson, USA

1:30–2:15

Samuelson meets Federalism: Local production of a national public good

Steven G. CRAIG, Univ. Houston, Texas, USA, Jan K.

BRUECKNER, Univ. California, Irvine, USA, Kangoh LEE, San Diego State Univ., California, USA

Discussant: Peter NIJKAMP, Jheronimus Academy of Data Science (JADS), The Netherlands

2:15–3:00

New findings of the local parcel tax in California cities, counties, and school districts

Soomi LEE, Univ. La Verne, California, USA

Discussant: John CHO, Southern California Assoc. Governments, Los Angeles, USA

Coffee Break: 3:00–3:30

3:30–4:15

Property tax, local sales tax and business activity: A spatial analysis

Mehmet TOSUN and Quan SUN, Univ. Nevada, Reno, USA

Discussant: Stephan GOETZ, Pennsylvania State Univ., University Park, USA

4:15–5:00

Can bureaucrats manipulate policy outcomes?

Steven G. CRAIG, Univ. Houston, Texas, USA, Edward C.

HOANG, Univ. Colorado, Colorado Springs, USA, and Janet KOHLHASE, Univ. Houston, Texas, USA

Discussant: Chad CHRIESTENSON, Univ. Wisconsin, Madison, USA



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 MICHIEKA, 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

**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

2:15–3:00

**Comparing spatial patterns of sole proprietorship and corporate
 payday lenders in Seoul, Korea**

Hyoungjun KIM, Bokyeong LEE, and So Young SOHN, Yonsei
 Univ., Korea

Discussant: Peter BATEY, Univ. Liverpool, United Kingdom

Coffee Break: 3:00–3:30

3:30–4:15

**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. WALDORF, Purdue
 Univ., West Lafayette, Indiana, USA

Discussant: Mark BROWN, Statistics Canada, Ottawa,
 Ontario, Canada

Coffee Break: 3:00–3:30

3:30–4:15

**The future of our Metropolis: The relative importance of
 occupational variations and metropolitan types in explaining the
 propensities to work at home**

Pengyu ZHU, Univ. Hong Kong, China and Peter GORDON, Univ.
 Southern California, Los Angeles, USA

Discussant: Mark PARTRIDGE, Ohio State Univ., Columbus,
 USA

4:15–5:00

Using ACS summary data to accurately estimate housing and occupancy

Joe FRANCIS, Cornell Univ., Ithaca, New York, USA
 Discussant: Gordon MULLIGAN, Univ. Arizona, Tucson, USA



Monday, 1:30 PM–5:00 PM

Paper Session 2F ~ Howell Mountain

The Keith Schwer Memorial Western State Economic Outlook (II): Will the Recovery Ever End?

Chair: Stephen MILLER,
 Univ. Nevada, Las Vegas, USA

1:30–2:00

Washington

R. Pete PARCELLS, Whitman College, Walla Walla, Washington, USA

2:00–2:30

Northern California

Jeff MICHAEL, Univ. the Pacific, Stockton, California, USA

Coffee Break: 2:30–3:00

3:00–3:40

Southern California

Raymond SFEIR, Chapman Univ., Orange, California, USA

3:40–4:20

Nevada

Stephen MILLER, Univ. Nevada, Las Vegas, USA

4:20–5:00

Florida

Sean SNAITH, Univ. Central Florida, Orlando, USA



“The Way Academic Life Should Be”

Submitting Papers to:



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 Kohlhasse, are here in Napa and will be happy to discuss potential submissions.

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)



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 GOTTLIEB, Rutgers Univ., New Brunswick, New Jersey, USA, and Anil HIRA, Simon Fraser Univ. Vancouver, British Columbia, Canada

Discussant: Geoffrey J.D. HEWINGS, Univ. Illinois, Urbana-Champaign, 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: Michael BATTY, Univ. College London, United Kingdom

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

Coffee Break: 10:00–10:30

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 SCHUNDER, 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 Counties

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





How many have you attended?

WRSa Meeting History

58 th	Napa Marriott, Napa Valley, CA (2019)
57 th	Hilton Pasadena, Pasadena, CA (2018)
56 th	La Fonda on the Plaza, Santa Fe, NM (2017)
55 th	Hilton Waikoloa Village, Hawaii, HI (2016)
54 th	Loews Ventana Canyon Resort, Tucson, AZ (2015)
53 rd	Paradise Point Resort, San Diego, CA (2014)
52 nd	Fess Parker's Doubletree, Santa Barbara, CA (2013)
51 st	Sheraton Kauai, Poipu, HI (2012)
50 th	Monterey Plaza Hotel, Monterey, CA (2011)
49 th	Hilton Sedona, Sedona, AZ (2010)
48 th	Silverado Resort, Napa, CA (2009)
47 th	Hilton Waikoloa Village Resort, Hawaii, HI (2008)
46 th	Hyatt Regency, Newport Beach, CA (2007)
45 th	La Fonda, Santa Fe, NM (2006)
44 th	Hyatt Regency Islandia, San Diego, CA (2005)
43 rd	Marriott Wailea Resort, Maui, HI (2004)
42 nd	Rio Rico Resort, Rio Rico, AZ (2003)
41 st	Hyatt Regency Monterey, Monterey, CA (2002)
40 th	Riviera Resort & Racquet Club, Palm Springs, CA (2001)
39 th	Sheraton Kauai Resort, Poipu, HI (2000)
38 th	Ojai Valley Inn, Ojai, CA (1999)
37 th	Hyatt-Regency Monterey, Monterey, CA (1998)
36 th	The Royal Waikoloan Resort, Waikoloa, HI (1997)
35 th	Silverado Country Club and Resort, Napa, CA (1996)
34 th	San Diego Princess Resort, San Diego, CA (1995)
33 rd	Westward Look Resort, Tucson, AZ (1994)
32 nd	Maui Inter-Continental Resort, Wailea, Maui, HI (1993)
31 st	Caesar's Tahoe Resort, South Lake Tahoe, NV (1992)
30 th	Monterey Plaza Hotel, Monterey, CA (1991)
29 th	Kaluokoi Hotel, Molokai, HI (1990)
28 th	San Diego Princess Resort, San Diego, CA (1989)
27 th	Silverado Country Club, Napa, CA (1988)
26 th	Kona Surf Resort, Keauhou, Hawaii, HI (1987)
25 th	Surf and Sand Hotel, Laguna Beach, CA (1986)
24 th	Hotel Del Coronado, Coronado (San Diego), CA (1985)
23 rd	Casa Munras Hotel, Monterey, CA (1984)
22 nd	The Prince Kuhio Hotel, Honolulu, HI (1983)
21 st	Miramar Hotel, Santa Barbara, CA (1982)
20 th	Newporter Inn, Newport Beach, CA (1981)
19 th	Doubletree Inn, Monterey, CA (1980)
18 th	Vacation Village Hotel, San Diego, CA (1979)
17 th	Mansion Inn, Sacramento, CA (1978)
16 th	Doubletree Inn, Tucson, AZ (1977)
15 th	Vacation Village Hotel, San Diego, CA (1976)
14 th	The Riviera Hotel, Palm Springs, CA (1975)
13 th	Edgewater Hyatt House, Long Beach, CA (1974)
12 th	Del Monte Hyatt House, Monterey, CA (1973)
11 th	Vacation Village Hotel, San Diego, CA (1972)
10 th	Santa Barbara Biltmore Hotel, Santa Barbara, CA (1971)
9 th	Vacation Village Hotel, San Diego, CA (1970)
8 th	Newporter Inn, Newport Beach, CA (1969)
7 th	Vacation Village Hotel, San Diego, CA (1968)
6 th	(Meeting site unknown), Las Vegas, NV (1967)
5 th	Santa Barbara Inn, Santa Barbara, CA (1966)
4 th	Meeting site and dates unknown (1965)
3 rd	Student Union, Arizona State Univ., Tempe, AZ (1964)
2 nd	Student Union, Univ. Oregon, Eugene, OR (1963)
1 st	Univ. California, Berkeley, Berkeley, CA (1962)



The 60 WRSa Presidents

1 st	1960–1961	William Golder
2 nd	1961–1962	Morgan D. Thomas
3 rd	1962–1963	James N. Tattersall
4 th	1963–1964	William S. Peters
5 th	1964–1965	John W. Dyckman
6 th	1965–1966	Charles M. Tiebout
7 th	1966–1967	Fred E. Case
8 th	1967–1968	Paul F. Wendt
9 th	1968–1969	Harold L. Buma
10 th	1969–1970	Bernard Udis
11 th	1970–1971	Edward L. Ullman
12 th	1971–1972	Anthony H. Pascal
13 th	1972–1973	Donald A. Watson
14 th	1973–1974	Charles L. Leven
15 th	1974–1975	Shelly Mark
16 th	1975–1976	Frank G. Mittelbach
17 th	1976–1977	Martin Beckmann
18 th	1977–1978	Parzival Copes
19 th	1978–1979	David Seymour
20 th	1979–1980	Werner Hirsch
21 st	1980–1981	Lee Attaway
22 nd	1981–1982	Niles Hansen
23 rd	1982–1983	Sol Rabin
24 th	1983–1984	Robert Keyes
25 th	1984–1985	Nina Gruen
26 th	1985–1986	Jack Knetsch
27 th	1986–1987	Gunter Schramm
28 th	1987–1988	Bernard Malamud
29 th	1988–1989	Harry W. Richardson
30 th	1989–1990	Paul E. Polzin
31 st	1990–1991	Michael J. Greenwood
32 nd	1991–1992	Kingsley E. Haynes
33 rd	1992–1993	Theodore Lane
34 th	1993–1994	Richard L. Morrill
35 th	1994–1995	John E. Keith
36 th	1995–1996	Antoine S. Bailly
37 th	1996–1997	Jon R. Miller
38 th	1997–1998	Jack C. Stabler
39 th	1998–1999	Lay James Gibson
40 th	1999–2000	Arthur Getis
41 st	2000–2001	John M. Quigley
42 nd	2001–2002	Brenda Moscove
43 rd	2002–2003	Roger Stough
44 th	2003–2004	Koichi Mera
45 th	2004–2005	Juanita Liu
46 th	2005–2006	Lee Huskey
47 th	2006–2007	Jack W. Osman
48 th	2007–2008	Geoffrey J. D. Hewings
49 th	2008–2009	T. John Kim
50 th	2009–2010	David W. Holland
51 st	2010–2011	Robert J. Stimson
52 nd	2011–2012	Warren Gill
53 rd	2012–2013	Peter Gordon
54 th	2013–2014	Hans Westlund
55 th	2014–2015	Serge Rey
56 th	2015–2016	K. Bruce Newbold
57 th	2016–2017	David A. Plane
58 th	2017–2018	Alan Murray
59 th	2018–2019	Matthias Ruth
60 th	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 GIULIANO, 60th WRSA President (2019–2020)

Discussant:

Peter GORDON
Univ. Southern California, Los Angeles, USA
and 53rd 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.
Jae Hong 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 Giuliano, Univ. Southern California

Chair:

Jaewon Lim, Univ. Nevada, Las Vegas



Western Regional Science Association

Officers for the 2018–2019 Year

President:

Matthias Ruth, Northeastern University

President-Elect:

Genevieve Giuliano, Univ. Southern California

Vice President:

Janet E. Kohlhasse, Univ. of Houston

Immediate Past President:

Alan Murray, Univ. California, Santa Barbara, USA

Executive Director:

Jaewon Lim, Univ. Nevada, Las Vegas, USA

WRSA's PRSCO Councilors:

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

WRSA's NARSC Councilor:

Jaewon Lim

Board of Directors

Martin Andersson, Lund University*
Chang-Hee Christine Bae, University of Washington
Marlon Boarnet, Univ. Southern California
Mark Brown, Statistics Canada
John Carruthers, George Washington University
Richard Church, University of California, Santa Barbara
Terry Clower, George Mason University
Makena Coffman, University of Hawaii
Sandy Dall'Erba, University of Illinois
Michel Dimou, Université de Toulon
Alessandra Faggian, Gran Sasso Science Inst.
Henk Folmer, University of Groningen
Eric Heikkila, Univ. Southern California
Randall Jackson, West Virginia University
Brian H.S. Kim, Seoul National Univ.*
Stein Østbye, UiT – The Arctic Univ.
R. Pete Parcells, Whitman College
Daoqin Tong, Arizona State Univ.
Jouke van Dijk, University of Groningen

Fellows

Antoine Bailly, 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
T. John Kim, University of Illinois
Theodore Lane, Thomas Lane & Associates
Frank Mittelbach, University of California, Los Angeles
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. State 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 socioeconomic 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

4:30–5:15

Broadband for remote regions: Lessons from Alaska and the Canadian North

Heather HUDSON, Univ. Alaska, Anchorage, USA
Discussant: Agnès FESTRÉ, Univ. Nice, France

5:15–6:00

Contractual arrangements in remote regions: The case of coal mining

Agnès FESTRÉ, Univ. Nice, France, Stein ØSTBYE and Jan Yngve SAND, UiT The Arctic Univ. Norway, Norway
Discussant: Matthew BERMAN, Univ. Alaska, Anchorage, USA



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 4E ~ Atlas Peak**Migration & Human Capital**

Chair: Mark BROWN, Statistics Canada, Ottawa, Canada

2:30–3:15

Technical migration, technology-induced demand of education, and spatial skill inequality: Evidence from U.S. urban patent counts

Oudom HEAN, Nattanicha CHAIRASSAMEE, and Mark PARTRIDGE, Ohio State Univ., Columbus, USA

Discussant: Björn HÅRSMAN, Royal Inst. Technology, Sweden

3:15–4:00

Where do immigrants locate in France? The untold story...

Alexandra SCHAFFAR, Michel DIMOU, and Samuel ETTOUATI, Univ. Toulon, France

Discussant: Soomi LEE, Univ. La Verne, California, USA

Coffee Break: 4:00–4:30

4:30–5:15

Innovative new firms and human capital spillovers - a microgeographic analysis

Johan P. LARSSON and Lucia NALDI, Jönköping International Business School, Sweden, Hans WESTLUND, KTH Royal Inst. Technology, Sweden, and Charlie KARLSSON, Jönköping International Business School, Sweden

Discussant: Samuel ETTOUATI, Univ. Toulon, France

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, 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



Tuesday, 6:15–7:45 PM

International Ballroom

President's Reception*For all participants and accompanying persons*With the generous support of
University of Southern California,
Los Angeles, California, 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

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

Coffee Break: 10:00–10:30

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

11:15–12:00

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

Coffee Break: 3:00–3:30

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 WESTERLUND, 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

Coffee Break: 3:00–3:30

3:30–4:15

Local employment spillovers in resource harvest: Evidence from Alaska's commercial fisheries

Brett WATSON, Mouhcine GUETTABI, and Matthew REIMER, Univ. Alaska, Anchorage, USA

Discussant: Jan Yngve SAND, UiT The Arctic Univ. Norway, Norway



Wednesday, 1:30 PM–5:00 PM

Paper Session 6C ~ Cabernet

Agriculture & Sustainability

Chair: Sebastien BOURDIN,

Ecole 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, Denis CUNHA, Federal Univ. Viçosa, Brazil, Newton BUENO, FUCEPE 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, Ecole 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

(Conference ends at 5:00 PM)

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 = WRSB 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.



“The Way Academic Life Should Be”

~A~

AKUNE, Yuko (akune.yuko@nihon-u.ac.jp): 1B, 3C
 AMPATZIDIS, Yiannis (i.ampatzidis@ufl.edu): 1D
 AN, Brian Y (yeokwana@usc.edu): 3B
 AN, Donghwan (dha@snu.ac.kr): 2C, 3C
 ANANTSUKSOMSRI, Sutee (sutee.a@chula.ac.th): 3B, 4D
 ANDERS, Anne (anders@uhcl.edu): 1A, 2C
 ANDERSSON, Martin (martin.andersson@bth.se): ABC1, 4E,
 5A, 5A, AL, WB
 ANDO, Asao (asao.ando@gmail.com): **1A, 2E, 3E**
 ARNOTT, Richard (richad.arnott@ucr.edu): 2B

~B~

BAGCHI-SEN, Sharmistha (geosbs@buffalo.edu): 3E, 6A
 BATEY, Peter (batey240@btinternet.com): ABC2, 2D, **GO, 3A,**
 6A
 BATTY, Michael (m.batty@ucl.ac.uk): GO, 3D
 BERMAN, Matthew (matthew.berman@uaa.alaska.edu): 4B,
 5B, 6B
 BESHARATI-ZADEH, Arezoo (arezoo.bshz@gmail.com): 5C
 BETZ, Michael (betz.40@osu.edu): 1D, 2C
 BLANKESPOOR, Brian (bblankespoor@worldbank.org): 1D
 BLIEN, Uwe (Uwe.Blien@iab.de): 3A
 BLIND, Ina (ina.blind@ibf.uu.se): 2B, 3B
 BOUGNA, Théophile (tbougna@worldbank.org): 1D
 BOURDIN, Sebastien (sbourdin@em-normandie.fr): 4F, 6C, **6C**
 BROWN, Mark (mark.brown@canada.ca): 2E, 3E, **4E, WB**
 BRUECKNER, Jan K (jkbrueck@uci.edu): 2A
 BUENO, Newton (newton@fucape.br): 6C

~C~

CAMPOS, Rafael (rcampos@illinois.edu): 6C, 6C
 CARRUTHERS, John (jic@gwu.edu): 2B, **4F, 5C, WB**
 CHAIRASSAMEE, Nattanicha (Chairassamee.1@osu.edu): 4E
 CHANG, Insu (sescis@kihasa.re.kr): 4F
 CHEN, Zhangliang (zchen105@illinois.edu): 6C
 CHEN, Zhenhua (chen.7172@osu.edu): 4C, 4C
 CHENG, Shaoming (scheng@fui.edu): 5A
 CHO, Deokho (chodh@daegu.ac.kr): 1C, 2C
 CHO, Jae Beum (jaebcho@iu.edu): 1C
 CHO, Jaewoo (jaewoocho@kaist.ac.kr): 2B
 CHO, John (choj@scag.ca.gov): 2A, 4C
 CHOI, Jinouk (jinouk.choi@unlv.edu): 6A
 CHOI, Yeol (yeolchoi@pusan.ac.kr): 4C, 5C, 6A
 CHRIESTENSON, Chad (chriestenson@wisc.edu): 2A, 3F
 CHUN, Bumseok (Bum.Chun@TSU.EDU): 5C
 CHURCH, Rick (church@geog.ucsb.edu): **2B, 3D, 4C, WB**
 COLE, Terrence (tmcole@alaska.edu): 5B
 COLLETTA, Aaron (aaron.colletta@unlv.edu): ABC1
 CONTRERAS, Sergio (scontre2@illinois.edu): 2D, 3D
 CRAIG, Steven G (scraig@uh.edu): 2A
 CUNHA, Dênis (denisufv@gmail.com): 6C

~D~

DABB, Steven (stevendabb@mail.weber.edu): 3F
 DAHLBERG, Matz (matz.dahlberg@ibf.uu.se): 3B
 DALL'ERBA, Sandy (dallerba@illinois.edu): ABC1, **3C, 4F,**
 6C, **WB**
 DESAI, Sameeksha (sdesai@kauffman.org): 6A
 DIMOU, Michel (dimou@univ-tln.fr): 3E, 4E, **WB**
 DJABA, Theophilus (theophilus.djaba@hotmail.com): 1C

DOBIS, Elizabeth (eud313@PSU.EDU): 3C
 DOH, Soogwan (doh.soogwan@gmail.com): 3F, 5A
 DRUGOVA, Tatiana (tatiana.drugova@gmail.com): 4A

~E~

EKLUND, Johan E (johan.eklund@entreprenorsforums.se): 1E
 ELIASSON, Kent (kent.eliasson@tillvaxtanalys.se): 6A
 ENOMOTO, Carl E (cenomoto@nmsu.edu): 1C
 ETTOUATI, Samuel (ettouatisamuel@live.fr): 4E, 4F
 EYER, Jonathan (jeyer@usc.edu): 3A

~F~

FARAH, Irene (irene@uchicago.edu): 2D, 3D
 FARRELL, Michael (lmf71645@hotmail.com): 1E, 5A
 FESTRE, Agnès (agnes.festre@gredeg.cnrs.fr): 4B, 4B
 FRANCIS, Joe (jdf2@cornell.edu): 1C, 2E
 FUKUMURA, Koichi (fukumura@e.u-tokyo.ac.jp): 1A, 3E

~G~

GARDUNO-RIVERA, Rafael (rafael.garduno@cide.edu): 1D, 4A
 GEARHART, Richard (rgearhart1@csu.edu): 1C, 2C
 GEISLER, Karl (geiskarl@isu.edu): 1C, 5A
 GETIS, Arthur (getis@sdsu.edu): ABC1, GO, 3A, WB
 GIBSON, Lay J. (ljgibson@comcast.net): OS, WB
 GIULIANO, Genevieve (giuliano@usc.edu): AL, WB
 GNAGEY, Matt (mattgnagey@weber.edu): 3F, 4F
 GOETZ, Stephan (sjg16@psu.edu): 1B, 2A, 3C, 4A
 GORDON, Peter (pgordon@usc.edu): 2E, 3A, AL, 4C
 GOTTLIEB, Paul (pdgott@sebs.rutgers.edu): 3C
 GRUEN, Claude (cgruen@ggassoc.com): OS
 GRUMSTRUP, Ethan (ethang@nevada.unr.edu): 1B, 4D
 GUETTABI, Mouhcine (mguettabi@alaska.edu): 4B, 6B
 GUZMAN, Karelys (kkg2@illinois.edu): 3C, 6C

~H~

HÄRSMAN, Björn (bjorn.harsman@indek.kth.se): 4E, 5A
 HAMMOND, George (ghammond@eller.arizona.edu): 1F
 HAN, Su Y (su.han@ucr.edu): 3D
 HAN, Yicheol (yuh14@psu.edu): 4A
 HARRIS, Thomas R (harris@unr.edu): 3B, 4D, 4D
 HAYNES, Kingsley (khaynes@gmu.edu): 2B, 3A, WB
 HEAN, Oudom (hean.1@osu.edu): 1E, 4E
 HEIKKILA, Eric J. (heikkila@usc.edu): 3C, 4D, WB
 HEWINGS, Geoffrey J.D. (hewings@illinois.edu): 3C, 4A, WB
 HIRA, Anil (anil_hira@sfu.ca): 3C
 HOANG, Edward C (ehoang@uccs.edu): 2A
 HOU, Yuting (houyuting86@gmail.com): 3B, 4C
 HOUSTON, Douglas (houston@uci.edu): 2B
 HUDSON, Heather (hehudson@alaska.edu): 4B
 HUSKEY, Lee (tlhuskey@uaa.alaska.edu): 4B, 5B

~I~

IKEGAWA, Maria (fraismania@gmail.com): 2D, 3D

~J~

JAKUS, Paul M (paul.jakus@usu.edu): 4A
 JANG, Duckhee (jdh73@kiost.ac.kr): 5A

JANG, Jinhyeok (123456@pusan.ac.kr): 6A
 JIN, Zhonghua (tonyjintsu@gmail.com): 5C
 JONES, Lauren E. (jones.2846@osu.edu): 2C
 JUNG, Changmu (plan@snu.ac.kr): 3F

~K~

KANG, Myounggu (mgkang@alum.mit.edu): 2B, 3F
 KANG, Wei (weikang@ucr.edu): 3D
 KARACSONYI, David (karacsonyidavid@gmail.com): 4B
 KARLSSON, Charlie (charlie.karlsson@ju.se): 1A, 4E
 KAWAMOTO, Kiyomi (kawamoto021@toyo.jp): 4F, 5C
 KIM, Brian H.S. (briankim66@snu.ac.kr): 2C, 3F, AL, 4F, WB
 KIM, Euijune (euijune@snu.ac.kr): 4A
 KIM, Hyungjun (junkim1003@gmail.com): 2D
 KIM, Hyunsoo (hyunsoo.kim@pusan.ac.kr): 5C
 KIM, Jae Hong (jaehk6@uci.edu): 1B, 2B
 KIM, Kwansoo (kimk@snu.ac.kr): 1B, 3C, 3C
 KIM, Man-Keun (mk.kim@usu.edu): 1E, 4A
 KIM, Mina (minakim@mkecon.com): 1A
 KIM, Tschangho John (tjohnkim@gmail.com): ABC1, 3A, 4C, WB
 KIM, Yong (kim1861@purdue.edu): 1C, 2E
 KIM, Yongjoon (yongjoonkim2012@snu.ac.kr): 3C
 KLAESSON, Johan (johan.klaesson@ju.se): 1E, 6A, 6A
 KNAAP, Elijah (elijah.knaap@ucr.edu): 3D
 KOHLHASE, Janet (jkohlhase@uh.edu): 2A, 3F, AL, WB
 KOURTIT, Karima (k_kourtit@hotmail.com): ABC1, ABC2, ABC2, 1C, 3A
 KRAFT, Benjamin R (Ben.Kraft@gatech.edu): 1A
 KULKARNI, Rajendra (rkulkarn@gmu.edu): ABC1

~L~

LAPPI, Emma (emma.lappi@ju.se): 1E
 LARSSON, Johan P (jpl66@cam.ac.uk): 4E, 5A
 LAVESSON, Niklas (niclas@lavesson.org): 4E
 LEE, Bokyeong (move314@gmail.com): 2D
 LEE, Dong Hak (idhlee2@gmail.com): 6A
 LEE, Heonyeong (leehy@gatech.edu): 1A
 LEE, Hyunji (island3737@snu.ac.kr): 1A, 4F
 LEE, Kangoh (klee@mail.sdsu.edu): 2A
 LEE, Soomi (slee4@laverne.edu): 2A, 4E
 LEE, Su-Jung (sjlee629@gwmail.gwu.edu): 2B
 LEIGH, Nancey Green (nleigh@gatech.edu): 1A
 LIM, Jaebin (jb.lim@lh.or.kr): 3F
 LIM, Jaewon (jaewon.lim@unlv.edu): ABC1, AL, 6A, WB
 LIU, Xingjian (xliu6@hku.hk): 4A
 LO, Ashley (Wan-Tzu) (wantzu.lo.e1@tohoku.ac.jp): 2B
 LOPEZ, Juan Carlos (juancarlos.lopez@du.edu): 1C, 2B
 LU, Yougeng (yougengl@usc.edu): 2C

~M~

MAERTENS, Anita (anita.maertens@gmail.com): 4B
 MALONE, Thom (tdmalone@usc.edu): 3B, 4D
 MANSURY, Yuri (ymansury@iit.edu): 1C, 2C
 MAURER, Samuel (maurer@berkeley.edu): 1B, 3B
 MCLAUGHLIN, Ralph (rbmclaughlin@gmail.com): OS
 MICHAEL, Jeff (jmichael@pacific.edu): 2F
 MICHIEKA, Nyakundi (nmichieka@csu.edu): 1D, 2C, 4A
 MILLER, Stephen (stephen.miller@unlv.edu): 2F, 2F

MULLIGAN, Gordon (mulligan@email.arizona.edu): 2E, WB

~N~

NAGAMATSU, Shingo (nagamatsu@kansai-u.ac.jp): 3A

NAKABAYASHI, Masaki (mn@iss-u-tokyo.ac.jp): 1A

NALDI, Lucia (lucia.naldi@ju.se): 4E, 5A

NAM, Kyung-Min (knam@hku.hk): 3F, 4F, 5C

NEWBOLD, Bruce (newbold@mcmaster.ca): 3E

NICHOLS, Mark (mnichols@unr.edu): 4D

NIJKAMP, Peter (p.nijkamp@tue.nl): ABC1, ABC2, 2A, 3A, 3A

NIKKHAH MANESH, Saba (nikkhahm@unlv.nevada.edu): 6A

~O~

ORLANDO, Anthony W (aworlando@cpp.edu): 3B

OSMAN, Jack (josman@sfsu.edu): 3A, WB

ØSTBYE, Stein (stein.ostbye@uit.no): 3E, 4B, 5B, 6B, WB

OU, Yifu (oyf915@connect.hku.hk): 3F

~P~

PAN, Qisheng (pan_qs@tsu.edu): 4C, 5C

PARAJULI, Jitendra (jparajuli@hotmail.com): 2B

PARCELLS, R. Pete (parcells@whitman.edu): 2F, 6C, WB

PARK, Jooyoun (jpark8@kent.edu): 1A

PARK, JungHo (junghopa@usc.edu): 3B, 5C

PARTRIDGE, Mark (partridge.27@osu.edu): 1E, 2E, 2E, 4E

PEISER, Richard (rpeiser@gsd.harvard.edu): 3B

PLANE, David A. (plane@email.arizona.edu): 2E, 3E, AL, WB

PROTASEL, Greg (gprotasel@alaska.edu): 5B, 6B

PRUCHA, Ingmar R. (pruchu@econ.umd.edu): 1E, 2D, 3D

~R~

RAO, Manita (manitara@usc.edu): 4D

RASMUSSEN, Rasmus Ole (rora.kujalleq@gmail.com): 4B, 5B

REID, Neil (neil.reid@utoledo.edu): ABC2, 3C, 4C

REIMER, Matthew (mreimer2@alaska.edu): 6B

REY, Sergio (sergio.rey@ucr.edu): 2D, 3D

RODNYANSKY, Seva (seva@berkeley.edu): 1D, 3B

ROGERSON, Peter (rogerson@buffalo.edu): 2D, 3D, 4D

ROSE, Adam (adam.rose@usc.edu): 1D, 3A, 4F, 5C

~S~

SAHAY, Nishit (n.sahay@rrsconsultant.com): ABC1

SAND, Jan Yngve (jan.sand@uit.no): 4B, 6B

SAYAGO-GOMEZ, Juan (juantomas.sayago@gmail.com): 1C, 3B

SCHAFFAR, Alexandra (alexandra.schaffar@univ-tln.fr): 4E

SCHINTLER, Laurie (lschintl@gmu.edu): ABC1

SCHREINER, Sydney (schreiner.77@osu.edu): 1E, 3E

SCHUNDER, Torsten (torstens@buffalo.edu): 3E

SELOD, Harris (hselod@worldbank.org): 1D

SEO, Yoonhee (nonno1234@hanmail.net): 1C

SESMERO, Juan P (jesmero@purdue.edu): 2E

SFEIR, Raymond (sfeir@chapman.edu): 2F

SHRESTHA, Binit K (shresb1@unlv.nevada.edu): 6A

SHRESTHA, Pramen P (pramen.shrestha@unlv.edu): 6A

SLAPER, Timothy (tslaper@indiana.edu): 1B, 2C

SNAITH, Sean (Sean.Snaith@ucf.edu): 2F

SNICKARS, Folke (folke@kth.se): 3F, 4A

SOHN, So Young (sohns2-@daum.net): 2D, 4D

SOUTHCOTT, Chris (chris.southcott@lakeheadu.ca): 4B, 4B, 6B

SPEIR, Cameron (cameron.speir@noaa.gov): 6C

STENBERG, Peter (nordacad13@gmail.com): 2C

STIMSON, Bob (rstimson@unimelb.edu.au): ABC2, 2B

STOUGH, Roger R. (rstough@gmu.edu): ABC1, ABC2, 3A, WB

SUE WING, Ian (isw@bu.edu): 5C

SUGIMOTO, Osamu (sam@josai.ac.jp): 1A, 4D

SUN, Quan (quans@unr.edu): 2A

~T~

TAI, Xiaonan (xiaonant@buffalo.edu): 3E

TAYLOR, Andrew (andrew.taylor@cdu.edu.au): 4B, 5B

TENNERT, Juliette (juliette.tennert@utah.edu): 1F

THILMANY, Dawn (Dawn.Thilmany@colostate.edu): 3F

THURMER, James (james.thurmer@cdu.edu.au): 4B, 6B

TIAN, Zheng (zzt36@psu.edu): 3C, 6C

TONTISIRIN, Nij (nij@ap.tu.ac.th): 3D, 4D

TOSUN, Mehmet (tosun@unr.edu): ABC2, 1D, 2A

TSVETKOVA, Alexandra (alexa.tsvetkova@gmail.com): 2E

TWEEDLE, Jesse (jesse.tweedle@canada.ca): 3E

~W~

WADDELL, Paul (waddell@berkeley.edu): 1B, 5C

WAERNBAUM, Ingeborg (ingeborg.waernbaum@umu.se): 6A

WALDORF, Brigitte S (bwaldorf@purdue.edu): 2E

WANG, Haoying (halking.econ@gmail.com): 1D

WANG, Yue (ywan86@hku.hk): 1D

WANG, Yuxuan (wang.6399@buckeyemail.osu.edu): 4C

WATSON, Brett (bwjordan2@alaska.edu): 6B

WEI, Dan (danwei@usc.edu): 5C

WESTERLUND, Olle (olle.westerlund@econ.umu.se): 3E, 6A

WESTLUND, Hans (hans.westlund@abe.kth.se): ABC1, ABC2,

3A, 3A, 4E, 5A, 6A, WB

WOBBEKIND, Richard R (richard.wobbekind@colorado.edu):

1F, 1F, WB

WOLF, Levi J (levi.john.wolf@bristol.ac.uk): 3D

WON, Doohwan (doohwan@pusan.ac.kr): ABC1

WU, Qiao (qiaowu@usc.edu): 1D, 2C

~X~

XIONG, Min (mxion001@fiu.edu): 4E, 5A

~Y~

YAMAGISHI, Atsushi (atsushi.yamagishi.econ@gmail.com): 3E

YAMASHITA, Eric (eric.yama@hawaii.edu): 4F, 5C

YAN, Rui (ruiyan@iu.edu): 1B, 5A

YEO, Changwhan (ych3720@daegu.ac.kr): 1C

YOKOYAMA, Tomohiro (yokoyama@se.is.tohoku.ac.jp): 3E

YOON, Yaerin (yyr0501@snu.ac.kr): 1B

YU, Meng (my211@hku.hk): 2B, 4A

YUAN, Quan (quanyuan@unc.edu): 3F, 4F

~Z~

ZENG, Dao-Zhi (zeng@se.is.tohoku.ac.jp): 1D, 4A

ZHANG, Jingwen (thujwz@gmail.com): 4D

ZHANG, Ting (tzhang@ubalt.edu): 3A

ZHU, Pengyu (pengyuzhu2002@yahoo.com): 1B, 2E



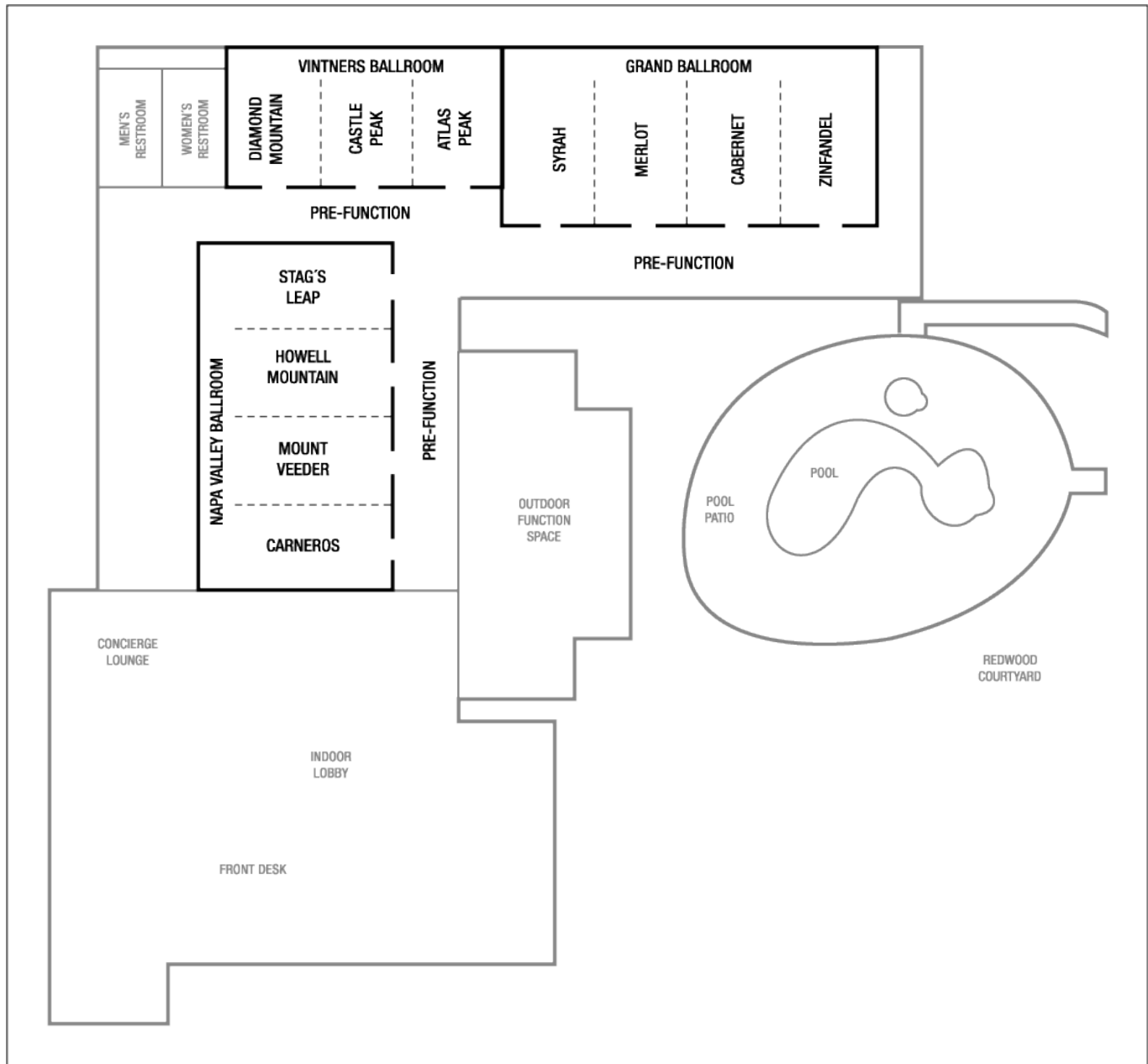
You've been working hard to expand the scientific landscape and IMPLAN wants to make sure that it's keeping pace to best serve you. This year during WRSA you can meet with IMPLAN developers in person to discuss what you would like to see and be able to do in IMPLAN. Go to the link below to reserve a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

Reserve your timeslot at [IMPLAN.com/WRSA](https://www.Implan.com/WRSA).

IMPLAN



Napa Valley Marriott Hotel & Spa



Our Meeting Venue:

Napa Valley Marriott Hotel & Spa
 3425 Solano Avenue
 Napa, California, 94558

Tel: 707-225-8600