



Transportation Science and Logistics Society

How is your summer going?

Dear TSL members,

we welcome you to this issue of our TSL newsletter. As always, we have assembled calls and news relevant for the TSL community. In particular, we provide a report on the recent Vienna TSL workshop. Furthermore, the Airline Group of the International Federation of Operational Research Societies is offering a new scholarship program for aviation students. Finally, several members of the TSL community have received prestigious prizes and published relevant books.

By the way, did you know that we also have a Twitter account? Follow us at @TSLSociety for the latest TSL news. Do you have any suggestions on how to improve the newsletter and our social media activities? Send us your comment to cleophas@bwl.uni-kiel.de.

We are looking forward to meeting you at one of the next TSL events – for example, the INFORMS Annual Meeting in Seattle.

Regards,

Catherine Cleophas (Newsletter Editor) and
Jan Fabian Ehmke (Communications Chair)



Greeting Austrian Summer at the 7th INFORMS TSL Workshop

7th INFORMS Transportation Science and Logistics Society Workshop

Vienna, Austria
July 15 – 18, 2019

The Faculty of Business, Economics and Statistics hosted the 7th INFORMS TSL Workshop at the University of Vienna. About 70 researchers presented their recent work on the topics of transportation in the sharing economy. This included contributions in the field of collaborative transportation, car and bike sharing, shared mobility services, etc.

In addition to academic presentations, the workshop provided a rich social agenda including an excursion to the picturesque Wachau region. The excursion ended in Göttweig Abbey, a Benedictine monastery on top of a hill offering a magnificent view over the Danube Valley. The conference dinner was served at Vienna City Hall.

The workshop attracted nearly 120 participants from 18 different countries. Martin Bichler from

the Technical University of Munich gave an inspiring keynote talk on the design of logistics markets. The second keynote speaker – Michal Tzur from Tel Aviv University – gave insights into the integration of objective-driven strategic, tactical, and operational design in transportation sharing. An excellent tutorial on optimization under uncertainty was delivered by Warren Powell.

The workshop ended with a farewell reception at University of Vienna's Skylounge, where participants enjoyed a great view over the city center of Vienna. Related to the topic of the workshop, there will be a Special Issue in Transportation Science. The call for papers will be available in August 2019.



CALL FOR ABSTRACTS

INFORMS Transportation and Logistics Society Second Triennial Conference Arlington, VA May 27 – 29 , 2020

The Transportation Science and Logistics Society Conference has been created to provide an opportunity for all members to gather on a triennial basis to present and to discuss the state-of-the-art in optimization applied to transportation science and logistics. The conference welcomes abstracts on all transportation science and logistics topics including but not limited to air transportation, facility logistics, freight transportation and logistics, intelligent transportation systems, and urban transportation planning and modeling. Abstracts that explore new problems or address major societal challenges such as aging, equity, and the environment are highly encouraged.

Abstract submission:

Abstracts should be **3-4 pages** in length. To ensure all presentations are of the highest quality, abstracts should highlight the main contributions of the research and include outcomes of computational studies, if applicable.

Dates of interest:

- Abstract submission deadline: 12/1/2019
- Notification of acceptance: 2/1/2020
- Deadline for early registration: 4/1/2020
- Conference: 5/27/2020-5/29/2020

The goal is to keep the conference small enough for deep interactions and large enough to accommodate the TSL Society's wide interests. With this in mind, there may be at most one paper presentation per registered presenter. Each presentation must be accompanied by at least one full paid registration.

Program: The conference will be organized around a small number of parallel tracks. The conference will also include plenaries and sessions designed specifically for PhD students.

Social agenda: In addition to a broad look at the future of transportation, this workshop will provide numerous opportunities to network with colleagues and establish new working relationships.

There will be a welcome reception on Tuesday evening. On Thursday evening, we will adjourn for dinner at the National Press Club (<https://www.press.org>).

Venue: The conference will be held on the Arlington Campus of George Mason University at the Antonin Scalia Law School (<https://www.law.gmu.edu/about/campus>).

The Arlington Campus is within walking distance of the Virginia Square-GMU Metro station on the Orange Line. For driving and Metro directions to GMU Arlington Campus go to: <https://info.gmu.edu/campus-maps-and-directions/arlington-campus-directions/>

Where to Stay: INFORMS has partnered with [Stay 22](#) to provide you with all available accommodations (hotels, Airbnbs, etc.) at the lowest price online. Book directly with the following map: [View 2020 INFORMS Transportation, Science & Logistics \(TSL\) Conference hotels and apartments on Stay22](#)

Organizing Committee:

Barry Thomas, General Chair – *University of Iowa*
 Elise Miller-Hooks, Local Chair – *George Mason*
 Ann Campbell – *University of Iowa*
 Jean-Francois Cordeau – *HEC Montreal*
 Alan Erera – *Georgia Tech*
 Carolina Osorio – *MIT*
 Tom Van Woensel – *TU Eindhoven*

2019 PhD Workshop on Advances in Operations Research Applied to Transportation and Logistics

Hosted at Loyola University Chicago,
May 20-22, 2019

Rarely have the fields of transportation and logistics seen a period of time with as many challenges and opportunities as there are today. Regarding challenges, market trends such as eCommerce have dramatically increased demands for home delivery services. At the same time, the nature of those demands is changing. Today's customers want goods delivered to their door, often the day they order them, and transported in a manner that has few ambient effects (e.g. pollution, traffic, noise). In addition, demographic trends have led to increases in urban populations, and thus greater demands for home deliveries in areas and regions wherein doing so in the manner customers want is particularly challenging.



Dr.'s Mike Hewitt, Kevin Stevens (Dean), and Maciek Nowak, Quinlan School of Business

Regarding opportunities, new technologies such as autonomous vehicles and drones provide new means for meeting customer demands for the home delivery of products. Similarly, technological innovations in computing power, software platforms, and tools for collecting and analyzing large data sets provide organizations with the

opportunity to develop and use better tools for planning how to meet those customer demands. Finally, new organizational models, such as the "gig economy", present both challenges and opportunities for meeting customer demands. Many of these challenges and innovations have occurred in the last 10-15 years. History would indicate that the rate of change and innovation, both in the logistics sector and the global economy as a whole, is only going to increase.

The Quinlan School of Business (QSB) at Loyola University Chicago is committed to the development of academics and practitioners who will have the academic expertise and industry understanding to meet these challenges and opportunities. As part of that commitment, Dr.'s Mike Hewitt and Maciek Nowak at QSB hosted a three-day workshop at Quinlan's Schreiber Center for PhD students whose dissertation research is focused on transportation and logistics. This workshop was made possible by funding from both the National Science Foundation and Uber, as well as support from QSB. During this workshop, students were exposed to the latest research advancements in transportation and logistics from a variety of research experts, insights into developing and managing an academic career from experienced academics, and the needs of today's organizations for individuals with advanced analytical skills from industry professionals.

Funding from NSF was used to provide scholarships for students to cover a portion of their lodging and meals while in Chicago. Of the 60 students that applied for a scholarship, 35 were granted. In total, forty-two students from 25 different universities and four different countries attended the workshop. The workshop was designed for both PhD students who want an academic career and those who want to work in industry. As a result, the speaker list was designed to include individuals who could discuss both career paths. Specifically, the speaker list

included 13 academics, one NSF program director, and three industry speakers.

Industry speakers:

Amazon

Manhattan Associates

Uber

Academics:

Niels Agatz – *Erasmus University Rotterdam*

Jean-Francois Cordeau – *HEC Montreal*

Irina Dolinskaya – *program director at the National Science Foundation*

Alan Erera – *Georgia Institute of Technology*

Emma Frejinger – *Université de Montreal*

Mike Hewitt – *Loyola University Chicago*

Gilbert Laporte – *HEC Montreal*

Hani Mahmassani – *Northwestern University*

Dirk Mattfeld – *TU Braunschweig*

Carolina Osorio – *Massachusetts Institute of Technology*

Martin Savelsbergh – *Georgia Institute of Technology*

Siqian Shen – *University of Michigan*

Karen Smilowitz – *Northwestern University*

Barry Thomas – *University of Iowa*



The current and next generations of transportation and logistics thought leaders

Given the scale and scope of today's challenges and opportunities for transportation and logistics researchers, many will be best addressed by teams of expert researchers with an understanding of how their in-depth expertise can be applied to practice. Thus, one objective of the

workshop was to integrate these future academics and practitioners into the existing community of transportation and logistics researchers. With support from Uber, Dr.'s Hewitt and Nowak planned social activities such as a conference dinner and a trip on the Chicago architectural river cruise to foster those connections.

Feedback from student attendees suggests the event was a success:

- "the testimonies and talks from experienced professors and practitioners from industry were invaluable for prospective scholars"
- "The diversity of students provided us the opportunity to connect and get to know each other for future cooperation"
- "I benefited from talking with professors and students from Industrial Engineering, Operations Research and business schools regarding how to conduct research on freight transportation, logistics, inventory management, etc."

Dr.'s Hewitt and Nowak intend to plan a similar event for the near future. Of course, the success of the event is due in great part to the participation of a speaker list that includes some of the leading minds in transportation and logistics practice and research. Without them, this event couldn't have happened, and on behalf of the organizing committee, I thank them. I would also like to thank the other members of the organizing committee who played a large role in making this workshop a possibility.

Mike Hewitt

Associate Professor Information Systems and Supply Chain Management
Quinlan School of Business
Loyola University Chicago

Organizing Committee

Hani Mahmassani – *Northwestern University*

Maciek Nowak – *Loyola University Chicago*

Siqian Shen – *University of Michigan*

Barrett Thomas – *University of Iowa*

SCHOLARSHIP

New Scholarship Program for Aviation Students

In celebration of the 60th anniversary of the Airline Group of the International Federation of Operational Research Societies (AGIFORS), we are delighted to announce the AGIFORS Scholars program for students in aviation.

The purpose of the award is to promote both industrial and academic careers in airline analytics, through two dedicated scholarships:

- The AGIFORS Industrial Practitioner Scholarship, for early career airline analytics practitioners with a demonstrated ability to make an impact through airline analytics, including an understanding of the industrial challenges and how to overcome them.
- The AGIFORS Researcher Scholarship, for Doctoral students building creative work with strong academic rigor and/or practical relevance at the crossroads of analytics and the airline industry

The award committee will select the winners of the two AGIFORS Scholarship Awards, and they will be invited to present their work at the relevant AGIFORS conference event. The AGIFORS

Community, represented by the conference attendants, will get opportunities to ask questions at the conference, and the awards will be presented to the winners.

The 2020 AGIFORS Scholars will receive a cash award of USD \$500 as well as air transportation, accommodations, and registration fees to attend the AGIFORS 60th Annual Symposium (location to be determined).

The AGIFORS Scholars program recognize the quality and impact of Masters of Science major projects of practitioners and researchers who are in the early stages of their careers and engage in an airline analytics. The AGIFORS Scholars is named in honor of Ken Wang. Ken served for many years as a member of the AGIFORS council and as the chair of the Schedule and Strategic Planning Study Group. He was also active in the Annual Symposium and Revenue Management study groups meetings.

For more information about the AGIFORS Scholars Program, including eligibility criteria and submission requirements, see <https://agifors.org/scholars> or contact the selection committee co-chairs Semi Gabteni and Laurie Garrow at semi.gabteni@agifors.org and laurie.garrow@agifors.org.



News and NotesCatherine Cleophas

Anna Nagurney, the John F. Smith Memorial Professor of Operations Management at the Isenberg School of Management at UMass Amherst, was elected a *2019 Fellow of the Network Science Society*. The ceremony took place as part of the 2019 NetSci Conference in Burlington, Vermont on May 29. Anna was cited “for sustained contributions to network science, including the formulation, analysis, and computation of solutions to engineered network systems, from congested urban transportation to supply chains, under varied decision-making behaviors.” She was one of seven Fellows elected in 2019.

Anna Nagurney was also selected as the first female recipient of the Constantin Caratheodory Prize, which she received in early July 2019 at the World Congress on Global Optimization in Metz, France. The Constantin Caratheodory Prize of the International Society of Global Optimization is awarded bi-annually to an individual (or a group) for fundamental contributions to theory, algorithms, and applications of global optimization. The prize is named after the mathematician Constantin Caratheodory and is awarded for outstanding work that reflects contributions that have stood the test of time. The criteria include scientific excellence, innovation, significance, depth, and impact. Previous winners of the prize are listed here:

<http://www.globaloptimization.org/prizes/isogo-prizes/>.

Arne Strauss. Air traffic control features many challenging problems for modelling and optimisation. Recently, the interdisciplinary Horizon 2020 project “COCTA” (the Operational Research team had been led by TSL member Dr Arne Strauss, University of Warwick) looked into designing a new mechanism of planning capacity to control air traffic in Europe.

As announced at the World Air Traffic Management Congress 2019, the project won Jane’s Innovation Award. The award recognises achievements that raise the performance of air traffic management; it is open to entries globally from industry and academia alike. Contenders were shortlisted and a winning entry in each category was selected by an independent panel of experienced judges from the SESAR Deployment Manager, EUROCONTROL, the Federal Aviation Administration (FAA), the International Air Transport Association (IATA), the International Civil Aviation Organization (ICAO), the International Federation of Air Traffic Controllers’ Associations (IFATCA), and IHS Markit.” Find more information here: <https://ihsmarkit.com/research-analysis/the-winners-of-the-janes-atc-awards-2019.html>

Gilbert Laporte, who holds the CIRRELT, GERAD and Canada Research Chair in Distribution Management at HEC Montréal, was accepted as a member of the Order of Canada in December 2018. In February 2019, he became a foreign member of the National Academy of Engineering (USA).

Carlos F. Daganzo (UC Berkeley) and **Yanfeng Ouyang** (University of Illinois at Urbana-Champaign) recently published a new textbook on public transportation systems titled *Transportation Systems: Principles of System Design, Operations Planning and Real-Time Control*. This unique book explains how to think systematically about public transportation through the lens of physics models. The book includes aspects of system design, resource management, operations and control. It presents both, basic theories that reveal fundamental issues, and practical recipes that can be readily used for real-world applications. The principles conveyed in this book cover not only traditional transit modes such as subways, buses and taxis but also the newer mobility

services that are being enabled by advances in telematics and robotics. Find more information here:

<https://www.worldscientific.com/worldscibooks/10.1142/10553>

Pratik J. Parikh, Professor for Industrial and Systems Engineering at Wright State University and current Chair of the Facilities Logistics SIG was selected as one of the recipients of Dayton Forty Under 40 awards for 2019. In addition, he

was recognized with the College Faculty Excellence in Research Award for 2019 at Wright State University.

Larry Snyder, of Industrial and Systems Engineering and co-director of the Institute for Data, Intelligent Systems, and Computation at Lehigh University, and current Vice-Chair of the Facilities Logistics SIG won the Logistics and Supply Chain Division's Teaching Award from IISE for 2019.

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To suggest items for future newsletters, contact
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 or Jan Fabian Ehmke at jan.ehmke@ovgu.de.

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