

Transportation Research Board

MINUTES

Committee on Traffic Flow Theory and Characteristics (AHB45)

Summer Meeting

Wednesday July 17, 2013 17:15-17:45

Huis ter Duin, Noordwijk aan Zee, the Netherlands

Venue

The meeting took place during the 20th ISTTT in Noordwijk, the Netherlands, the 17th of July.

Attendance

Robert Bertini, Victor Knoop, Winnie Daamen, Christine Buisson, Heng Wei, Nikolas Geroliminis, Yu (Marco) Nie, Yanfeng Ouyang, Hans van Lint, Ilgin Guler, Vikash V. Gayah, Eric J. Gonzales, Majid Sarvi, Yufei Yuang, Bernat Géni Ros, Martin Treiber, Shahreena Melati Rhasbudin Sha, Lasmini Ambarwati, Jia Li, Kai Yuan, Xiapeng Li, Ronghui Liu, Florian Marczak, Céline Parzani, Michael Zhang.

Contents

Three main points were addressed: membership, special call for next TRB and activities of the subcommittees.

The chair presented the **members** that were rotated or nominated in April 2013 according to the TRB rules that imply an important rotation of the members:

- He first thanked the previous members for their contributions: Michael Cassidy, Benn Coifman, Lily Elefteriadou, Serge Hoogendoorn, Elizabeth Jones, Der-Horng Lee, Daiheng Ni, Markos Papageorgiou, Hesham Rakha and Alex Skabardonis;
- He thus welcomed the new Committee Members Costas Antoniou, Vikash Gayah, Michael Zhang, Koohong Chung, Yibing Wang, Winnie Daamen and Yanfeng Ouyang;
- Young members becoming regular members: Jing Dong, Samer Hamdar and Monica Menendez;
- New young members: Victor Knoop, Ethan Xuan and Meead Saberi;
- The new committee secretary will be Soyoung Ahn.

During the next TRB, there will be **3 special calls for papers**:

- 50 Years of Traffic Flow Theory: Achievements and Challenges (L. Leclercq, F. van Wageningen-Kessels, H. Mahmassani, N. Gartner)
- Crowd Dynamics: Empirical Analyses, Modeling, Simulation and Management (Joint with ANB80T - Emergency Evacuation; proposed by the new subcommittee -see below- and coordinated by M. Sarvi).
- Urban Traffic Modeling and Management Using the Macroscopic Fundamental Diagram, N. Geroliminis, V. Gayah, V. Knoop.

The list of the **sub committees** is thus presented:

1. **Joint Subcommittee on Traffic Simulation Models, G. List.** A Google group was created. The midyear meeting of SimSub was held during the HCQS meeting in NYC. Need to firm up topic for Sunday Workshop in January (and possible TR Circular as product). New editor for newsletter. New midyear newsletter. Agent based modeling and simulation conference upcoming at VA Tech. John Halkias is continuing to work on issuing a request to develop the simulation guidebook. The idea of publishing

systematically the papers presented during the SimSub meeting of the Sunday Workshop is accepted by the present members/friends.

2. Research Problem Statements, Hadi. Volunteers are welcome
3. Paper Review, Bertini.
4. Greenshields Prize, N. Gartner. The winner for 2013 is the paper #13-4853, "A Comparison Of Data-Fitted First Order Traffic Models and Their Second Order Generalizations Via trajectory and Sensor Data" by Benjamin Seibold and Shimao Fan.
5. **Mid-Year Meeting, Hadi.** After the midyear meeting of 2014 that will take place in Portland, Oregon (commemorate committee 50th anniversary), it will be held in 2015 Kobe (ISTTT) and probably in Chicago in 2017 (ISTTT). There is a need for an international volunteer for organizing it in 2016. The idea of publishing the best papers in a special issue of a peer reviewed journal is encouraged. Majid is responsible of making a list of the members of editorial committee that are friends/members of the TFT committee.
6. **Outreach and Diversity, Hamdar.** The recent activities encompass:
 - The AHB45 newsletter has been launched.
 - Contact with the American Society of Civil Engineers (ASCE) is established for possible collaboration/share of information.
 - Communication with corporations conducting cutting-edge research related to traffic has been initiated (Google, Volkswagen America). The subcommittee is looking for possible collaboration opportunities and active participation in the TRB related activities.
 - The subcommittee, in collaboration with the PEPSub subcommittee, is sharing traffic education modules/materials with DC Public Schools and looking for any other interested entities (special thanks to Professor Hans van Lint).
 - The subcommittee is actively using social media (Google, Facebook [368 Likes]) to communicate with members and friends (special thanks to Mead Saberi - the Webinars Subcommittee).
7. Committee Website, Bertini
8. Strategic Planning, Bertini
9. Classic/Historic Papers, Ahn/Laval/Geroliminis
10. Special Report on Traffic Flow Theory, Mahmassani
11. PEPSub, van Lint. For this committee we encourage the members and friends to send their videos to Hans van Lint in order that he creates a YouTube channel. Also for this committee there could be a page to store and exchange slides produced to teach and open it to student's questions.
12. NEW: Crowd Flow Dynamics, Modeling, and Management, Sarvi/Hoogendoorn

The meeting ended after having a final discussion about some breakthroughs to prepare the next TRB meeting. What were the main new ideas that appeared inside the community during the last 20 years? What will be the future of our field? As main recent results, it was mentioned:

- The fact that after a strong diverge and some conflicts between researchers some promoting microscopic vision some others macroscopic vision, there is now a better understanding of the complementarities and similitude between the two approaches.
- The (re-)apparition of the concept of network/macroscopic fundamental diagram and the new ideas of using it for control of large areas is another significant novelty of the recent years.