



Traffic Flow Theory and Characteristics Committee Meeting

2018 Midyear Meeting
Woods Hole, MA

August 8, 2018



Self-Introductions Members/Friends

Please don't forget to sign in!



Announcement



Group Photo during Lunch



Agenda



-
- TRB Report R. Cunard/R. Bertini
 - FHWA Programs & Activities J. Sturrock
 - Chair Report S. Ahn
 - Membership S. Ahn
 - TFTC Subcommittee Reports
 - SimSub (AHB45(1)) S. Ahn/M. Hadi
 - Crowd Flow Dynamics, Modeling and Management (AHB45(2)) ?
 - Connected Automated Vehicles (AHB45(3)) S. Ahn
 - Research Problem Statements M. Hadi
 - Paper Review S. Ahn
 - Awards M. Menendez
 - Outreach and Diversity S. Ahn
 - Midyear Meetings S. Ahn/Attendees
 - 2018 – Woods Hole
 - 2019 – Lausanne, Switzerland (ISTTT 23)
 - 2020 – ?
 - Liaison with other Committees All Attendees
 - Announcements and Future Meetings All Attendees
 - New Business All Attendees
 - TRB Standing Committees Centennial Paper



TRB Report



-
- Rich Cunard
 - Rob Bertini



U.S. DOT/FHWA Report



- Jim Sturrock
-



Membership

- Member Rotation in 2019

 - Currently 38 members
 - 25 Regular
 - 5 International
 - 4 Young (younger than 35 years old)
 - 2 State DOT
 - 2 Emeritus

 - Maximum: Three 3-year terms
-



Chair Report: Calls for Papers

- Crowd dynamics: empirical analyses, modeling, simulation, and management:
<https://annualmeeting.mytrb.org/CallForPapers/Details/594>
 - Big Data and Machine Learning Methods in a Connected Traffic Environment: From Empirical Experimentation to Analytical Modeling:
<https://annualmeeting.mytrb.org/CallForPapers/Details/568>
 - Large-scale urban traffic network modeling and control:
<https://annualmeeting.mytrb.org/CallForPapers/Details/523>
-



Chair Report: Workshops

Proposed Workshops at TRB 2019

- Modeling Uncertainties in Cooperative Automated Vehicles
 - AHB45(1) SimSub
 - Sunday, January 13th, 2019 (tentative)

 - Real and Virtual Data Collection Platforms for Connected and Automated Vehicles Modeling, Calibration and Validation
 - AHB45(3) CAV Sub
 - Sunday, January 13th, 2019 (tentative)
-



Subcommittees

1. SimSub (AHB45(1)) M. Hadi
2. Crowd Flow Dynamics, Modeling and Management (AHB45(2)) ?
3. Connected Automated Vehicles (AHB45(3)) S. Ahn
4. Research Problem Statements M. Hadi
5. Paper Review S. Ahn
6. Outreach and Diversity S. Ahn
7. Awards M. Menendez
 - Award proposition (Reproducible research) Buisson



SimSub



Joint Traffic Simulation (SimSub) Subcommittee Report

Presented by

**Mohammed Hadi, Ph.D., PE
Florida International University**

**Traffic Flow Theory Committee Summer Meeting
Woods Hole, MA**

August 2018

TRB 2019 Sunday Workshop

- Workshop Title: Modeling Uncertainties in Cooperative Automated Vehicles
 - How will these CAVs interact with other vehicles (human-driven vehicles) and moving objects such as pedestrians, bicycles, etc?
 - How will the measurement errors from the numerous sensors (e.g., radar, lidar, GPS, etc.) affect the safety and mobility performance?
 - What effect will the false positives and false negatives of object detection and position have on these CAVs?
 - How will the dynamic temporal and spatial changes of the infrastructure affect the efficiency and effectiveness of these CAVs?
 - How can we enable AMS tools to evaluate CAV applications and the uncertainties that will exist.

SimSub Activities and Discussions

- Best paper award
 - Theory and application
- Life-time award
- Web site update
- SimSub report
- Support of TSSM research
- SimSub membership
- Centennial paper

Potential SimSub and SimCap Joint Activities

- Safety modeling
- Pedestrian modeling
- Product-specific guidance and information and meeting user community expectation by vendors
- How much calibration is enough/
- CAV and reliability outreach activities to the community
- Lessons learned, value of good simulation, return on investment (task group, problem statement for NCHRP synthesis).
 - Misuse of modeling
- Consistent and reliable data sources
- Ethical and credibility challenges, possibly certification



Crowd



Progress Report

AHB45(3) Subcommittee: Traffic Flow Modeling for Connected and Automated Vehicles



AHB45 Summer Midyear Meeting
Woods Hole, MA, USA
August, 2019



Traffic Flow Modeling for Connected and Automated Vehicles – AHB45 (3)



Transportation Research Board Annual Meeting Events (13-17 January '19):

a. **Call for Papers:**

Big Data and Machine Learning Methods in a Connected Traffic Environment: From Empirical Experimentation to Analytical Modeling

b. **Workshop (Tentative: Sunday January 13, 2019):**

Real and Virtual Data Collection Platforms for Connected and Automated Vehicles Modeling, Calibration and Validation





Traffic Flow Modeling for Connected and Automated Vehicles – AHB45 (3)



- AVS 2018: No Active Participation
 - Resuming participation in 2019 with better coordination
 - Possible organization of TFT 2020 Midyear Meeting along with AVS 2020

- Book Chapters:
 - Road Vehicle Automation 4: 2017: Traffic Flow of Connected and Automated Vehicles: Challenges and Opportunities
 - Road Vehicle Automation 5: 2018: Enhancing the Validity of Traffic Flow Models with Emerging Data
 - 2019: No Participation
 - 2020: Tentative: From Construction to Modeling: Connected and Automated Vehicles' Deployment, Management and Control





Traffic Flow Modeling for Connected and Automated Vehicles – AHB45 (3)



Additional Activities:

1- Two Active Special Issues/Call For Papers:

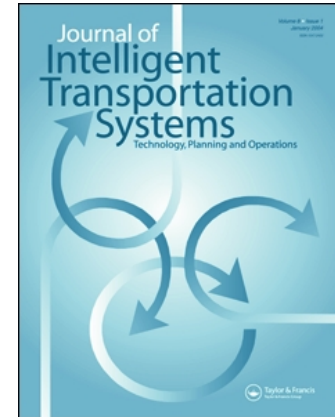
A- Traffic and Granular Flow 2017 - The Role of Technology in the Understanding and the Evolution of Traffic Dynamics

<http://explore.tandfonline.com/cfp/est/jmt05562-gits-traffic-and-granular-flow-2017>

B- Modeling and Detecting Traffic Dynamics: Granular, Pedestrian and Vehicular Flow

<http://www.keaipublishing.com/en/journals/journal-of-traffic-and-transportation-engineering-english-edition/call-for-papers/modeling-and-detecting-traffic-dynamics/>

2- Possible expansion in mission/scope: Co-Sponsorship, More Active Role with USDOT/FHWA, Monograph/Manuscript Chapter?





Traffic Flow Modeling for Connected and Automated Vehicles – AHB45 (3)



- Special Thanks to:
 - Xiaopeng (Shaw) Li
 - Meng Wang
 - Mark Brackstone
 - Michael Levin
 - Danjue Chen
 - Steve Mattingly
 - Alireza Talebpour
 - Alexander Skabardonis
 - Sue Ahn
 - Robert L. Bertini





Research Problem Statements



Paper Review

- New paper review system: Number of required reviewers
 - Presentation only: at least 2 reviewers
 - Presentation and Publication: at least 3 reviewers

Dates	Process	Review Outcome
Aug 1	Papers due	
Aug 20	Assign reviews	
Sep 15	Reviews due	
Sep 30 – Oct 15	1st round decision	Accept, RR (major revision, minor revision), Reject
Nov 15	Revised papers due	
Dec 1 - Dec 15	2nd round decision	Accept ('minor revision' papers), Re-review, Reject
Jan 31	Final decision	Accept within the quota (20%), Reject



TFTC Awards



- Award subcommittee (for the papers presented in January 2017):
 - Nathan Gartner
 - Ludovic Leclercq
 - Monica Menendez
 - Rob Bertini
 - Jiwon Kim
- Awards considered:
 - D. Grant Mickle Award
 - Fred Burggraf Award
 - Cunard Award
 - Best Paper on Traffic Flow Theory
 - Greenshields Prize
 - **Resurrecting the Lost Vehicle Trajectories of Treiterer and Myers: with New Insights into a Controversial Hysteresis** (by Benjamin Coifman, Lizhe Li, Wen Xiao)



Awards

-
- Proposition of a New Award for the Operations Section
 - Reproducible Research (C. Buisson)



Progress Report

Outreach and Diversity Subcommittee

AHB45 Summer Midyear Meeting
Woods Hole, MA, USA
August, 2019



Outreach and Diversity Subcommittee

- Newsletter (<http://tftcnews.blogspot.com/>): 4 issues in 2018 (expected 8 issues in total before 2019 given the provided information) – Change in platform
 - YouTube Channel (<https://www.youtube.com/user/AHB45/feed>)
 - Interviews Conducted by Alireza Talebpour for additional YouTube posting
 - Facebook Page (Meead Sabri: <https://www.facebook.com/AHB45>)
 - Paper discussion/exchange platform for young members to replace ISTTT 22 Webinar Series?
-



Outreach and Diversity Subcommittee

- Special Thanks to:
 - Alireza Talebpour
 - Justin Schorr
 - Meead Saberi
 - Xiaopeng Li
 - Robert Bertini
 - Sue Ahn
 - Jorge Laval
 (All TFT website/facebook page/newsletter/webinar contributors and readers)

Transportation Research Board
Traffic Flow Theory and Characteristics
Committee—AHB 45

Newsletter

EVENTS/ANNOUNCEMENTS

AHB45 Committee Summer Meeting — *Early Bird Registration Ending on June 15, 2018.*

The traffic flow theory and characteristics committee (TFTC) of the Transportation Research Board invites you to attend and contribute to its mid-year meeting taking place in Woods Hole, MA, USA from the 7th to the 9th August 2018. The meeting's central topic is: "Overcoming the current limitations of our traffic models".

The [program](#) of the meeting is finalized. There will be 22 papers offered and 4 key notes presentations provided by Lily Elefteriadou, Mickael H Zhang, Monica Mendez and Benjamin Coifman. The first two days (7th and 8th of August) will be devoted to the presentations of the 22 papers and of the 4 key-notes; the TFTC meeting itself being held on the morning of the second day. The gala dinner will take place on the second day. The morning of the third day (9th of August) will be devoted to classic papers retreat where additional contributions associated with topics related to control, pedestrian traffic ...etc. are encouraged. The committee would like to thank the generous contributions of the sponsors (INRO, Aimsun, Caliper). We encourage our friends and members to register. **The early bird registration ends on June 15, 2018.**

[More Details](#)

AHB45 2019 TRB Annual Meeting Calls for Papers.

The 2019 Transportation Research Board (TRB) Annual Meeting will be held on January 13-17, 2019, in Washington DC, USA. As in every year, the Traffic Flow Theory and Characteristics Committee (AHB45) along with its subcommittees will be organizing several events/calls for papers. Starting June 14, 2018, we would



Volume 6, Issue 5
May 2018

Newsletter Spotlight

AHB45 Summer Meeting: Early Bird Registration Deadline

TRB 2019 Annual Meeting: Three AHB45 Calls for Papers

TGF'17 Special Issues: Journal of Traffic and Transportation Engineering and Journal of Intelligent Transportation Systems

Faculty Positions: University at Buffalo—State University of New York

Prof. Hermans and Ms. Almas-kari Cartoons/Pictures

Traffic in the Media: "SoftBank joins GM in self-driving car race; GM shares soar"





2018 Summer Meeting



■ *Organizing Committee*

- *Chairs:* Christine Buisson, Danjue Chen, Sue Ahn
- *TRB:* Freda Morgan, Rich Cunard
- *Sponsors:* Umass, Amherst, Aimsun, Caliper, INRO
- *Members*

Costas Antoniou, DE
Winnie Daamen, NL
Vikash Gayah, USA
Eric Gonzales, USA
Ilgin Guler, USA
Wei Long Jin, USA,

Mehdi Keyvan Ekbatani, NZ
Daiheng Ni, USA
Vincenzo Punzo, IT
Peter Wagner, DE
Haizhong Wang, USA
Zuduo Zheng, AUS





2018 Summer Meeting

- Extended Abstracts and Presentations on the Conference Website (<https://tftc2018.sciencesconf.org/>)
 - Classic Papers and Presentations on the Conference Website
-



2018 Summer Meeting

- Call for Papers for a Special Issue In Transportation Research Part C
 - “Traffic flow modeling: new data, new problems, new methods, and new models/theories”
 - **Important dates:**
 - Special issue article type in **EVISE**: August 15th, 2018
 - Submission deadline – February 15th, 2019
 - Author notification of first round of reviews – April 1st, 2019
 - Author notification of second round of reviews (if needed) – June 1st, 2019
 - Special issue completed –July 31st, 2019
 - Papers will be reviewed on a first-come-first-served basis in the open window (August 15th, 2018 - February 15th, 2019)



Summer Meetings

- 2019 - ISTTT 23 (Lausanne, Switzerland)
 - 2020 ?
 - Midyear meeting at AVS 2020?
 - Please send me your proposal
 - Will discuss and vote during committee meeting in January 2019
-



Liaison with Other Committees

- Highway Capacity Quality of Service Committee (AHB40)
J. Sturrock/M. Hadi

 - Task Force on System Simulations (AHB80T)
R. Bertini/J. Sturrock/R. Cunnard
-



New Business





TRB Standing Committees Centennial Papers



- TRB will celebrate its 100th anniversary in 2020. The Technical Activities Council and the Centennial Task Force invite all committees to submit a Centennial Paper as part of the celebration. This is a great opportunity for each of our standing committees **to showcase the committee's past accomplishments and contributions to transportation, demonstrate the committee's current relevancy and activities, and consider the committee's role in meeting future challenges and opportunities.** Centennial Papers will be featured on the Centennial website.
-



TRB Standing Committees Centennial Papers



- Timeline
 - **February 1, 2019:** Draft paper due to the committee's TRB Staff Officer
 - March 1, 2019: Staff Officer comments / edits due to Committee
 - May 1, 2019: Final paper due to Staff Officer
 - June 1, 2019: Final paper due to website content manager
 - Summer 2019: Centennial website launch

 - Volunteers?
-



New Business

- Any other?
-



Adjourn



Please don't forget to sign in!
