

ARTS22 Breakout Session Title:

151-Inconsistency of AV Traffic Flow Impact: Predictions in Literature

Session Contact/Organizers:

- Tom Shi, Research Fellow, University of Michigan
- Hao Liu, Assistant Research Engineer, University of California, Berkeley
- Meng Wang, Professor, Technische Universität Dresden

TRB Sponsor/Partner Committees (if any): ACP30 working group #3**Session Description**

In the existing literature, models without empirical evidence/validation tended to support the positive impacts of AVs. However, recent field experiments of commercial ACC systems showed negative impacts on flow stability and capacity. This inconsistency may hinder the further development of AV technologies. This session aims to identify the major reason causing this discrepancy and how to close the gap.

Goals/Objectives/Outputs

- Review the recent field experiment results of commercial ACC systems
- Identify the reasons causing the discrepancy among empirical-based and simulation-based studies
- Policy and management suggestions of future commercial AV traffic

Agenda

Duration: 3 hours (180 minutes)

Session Duration	Description	Total Time
5 minutes	Opening Remarks	5
20 minutes	1 st Speaker Presentation Session	25
20 minutes	2 nd Speaker Presentation Session	45
20 minutes	3 rd Speaker Presentation Session	65
20 minutes	4 th Speaker Presentation Session	85
20 minutes	5 th Speaker Presentation Session	105
20 minutes	6 th Speaker Presentation Session	125
Rest of Time	Panel Discussion Session and Summary	180

Description:

- 20 minutes presentation for each speaker.
- 6 speakers.
- 35 minutes panel Discussion.

Moderator:

- Tom Shi , Research Fellow, University of Michigan
- Hao Liu, Assistant Research Engineer, University of California, Berkeley
- Meng Wang, Professor, Technische Universität Dresden

Panelists Invited:

- Daniel Work, Associate Professor, Vanderbilt University
- Rachel James, Transportation Operations Engineer Federal Highway Administration
- Biagio Ciuffo, Scientific Officer, European Commission Joint Research Centre
- Jordi Casas Vilaro, Research Director, Aimsun
- David Kan, Assistant Professor, Florida Atlantic University
- Xiaopeng Li, Associate Professor, University of South Florida