Mathematical Approaches for Traffic Flow Management Tutorials

Wednesday September 9, 2015

8:00–9:00 *Check-In/Light Breakfast (Hosted by IPAM)*

9:00–10:15 **Benjamin Seibold** (Temple University)
A mathematical introduction to traffic flow theory: Part I

10:15–10:45 *Break*

10:45–12:00 **Hans van Lint** (Technische Universiteit te Delft)
Traffic state estimation basics: Part I

12:00–12:30 *Core Orientation with IPAM Staff*

12:30–2:00 *Lunch (on your own)*

2:00–3:15 **Cynthia Chen** (University of Washington)
At least three decades' active research in travel behavior (aka human mobility) analysis: Part I

3:15–3:45 *Break*

3:45–5:00 **Alexander Skabardonis** (University of California, Berkeley (UC Berkeley))
A primer on ramp metering, traffic signal, and variable speed limit control: Part I

Thursday September 10, 2015

8:00–9:00 *Check-In/Breakfast (Hosted by IPAM)*

9:00–10:15 **Benjamin Seibold** (Temple University)
A mathematical introduction to traffic flow theory: Part II

10:15–10:45 *Break*

10:45–12:00 **Hans van Lint** (Technische Universiteit te Delft)
Traffic state estimation basics: Part II

12:00–2:00 *Lunch (on your own)*

2:00–3:15 **Cynthia Chen** (University of Washington)
At least three decades' active research in travel behavior (aka human mobility) analysis: Part II

3:15–3:45 *Break*

3:45–5:00 **Alexander Skabardonis** (University of California, Berkeley (UC Berkeley))
A primer on ramp metering, traffic signal, and variable speed limit control: Part II

Friday September 11, 2015

8:00–9:00	*Check-In/Breakfast (Hosted by IPAM)*
9:00–10:15	**Benjamin Seibold** (Temple University) *A mathematical introduction to traffic flow theory: Part III*
10:15–10:45	*Break*
10:45–12:00	**Daniel Work** (University of Illinois at Urbana-Champaign) *Sequential traffic estimation: Part I*
12:00–2:00	*Lunch (on your own)*
2:00–3:15	**Christian Claudel** (University of Texas at Austin) *Hamilton-Jacobi formulation of first order scalar conservation laws: theory and computational methods*
3:15–3:45	*Break*
3:45–5:00	**Alexander Skabardonis** (University of California, Berkeley (UC Berkeley)) *A primer on ramp metering, traffic signal, and variable speed limit control: Part III*

Saturday September 12, 2015

8:00–9:00	*Check-In/Breakfast (Hosted by IPAM)*
9:00–10:15	**Daniel Work** (University of Illinois at Urbana-Champaign) *Sequential traffic estimation: Part II*
10:15–10:45	*Break*
10:45–12:00	**Christian Claudel** (University of Texas at Austin) *Applications of Hamilton-Jacobi equations to network traffic state estimation and control*
12:00	*Conclusion*

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