### List of Papers of the International Symposium on Transportation and Traffic Theory (ISTTT)

1st Meeting, 7-8 December 1959 (published 1961). Warren, MI, USA. Edited by R. Herman.

- 1. The Car-Road Complex. J.B. Bidwell.
- 2. Some Problems in Intersection Traffic Control. D.L. Gerlough.
- 3. Traffic Flow with Pre-Signals and the Signal Funnel. W. von Stein.
- 4. The Distribution of Traffic on a Road System. J.G. Wardrop.
- 5. The Relative Distribution of Households and Places of Work. A Discussion of the Paper by J.G. Wardrop. M.H. Cohen.
- 6. **Multicopy Traffic Network Models.** A. Charnes and W.W. Cooper.
- 7. On the Design of Communication and Transportation Networks. W. Prager.
- 8. **Dynamic Behavior of Traffic with a Nonlinear Spacing-Speed Relationship.** E. Kometani and T. Sasaki.
- 9. Single-Lane Traffic Theory and Experiment. Robert Herman and R. B. Potts.
- 10. Acceleration Noise and Clustering Tendency of Vehicular Traffic. E. W. Montroll.
- 11. A Boltzmann-like Approach to the Statistics Theory of Traffic Flow. I. Prigogine.
- 12. Traffic Flow Treated as a Stochastic Process. A.J. Miller.
- 13. Experiments on Single-Lane Flow in Tunnels. L.C. Edie and R.S. Foote.
- 14. A Theory of Traffic Flow in Tunnels. G.F. Newell.
- 15. Simulation of Bottlenecks in Single-Lane Traffic Flow. W. Helly.

#### 2nd Meeting, 25-27 June 1963 (published 1965). London, UK. Edited by J. Almond.

- 1. Car Following and Steady State Flow. R. Herman and R.W. Rothery.
- 2. **On a Mathematical Function of Traffic Flow Theory.** R.M. Oliver, B. Catoire and R.S. Skeates.
- 3. Single Lane Saturated Flow Starting Performance. N. Forchhammer.
- 4. Perpetual Factors in Car Following. R.M. Michaels.
- 5. Times Series Analysis as Applied to Traffic Flow, P.I. Welding.
- 6. Instability in Dense Highway Traffic, A Review. G.F. Newell.
- 7. Single Lane Traffic Flow Control. R.S. Foote.
- 8. Experimental Speed/Flow Relations in a Single Lane. J.G. Wardrop.
- 9. On the Flow-Concentration Relationship for Traffic. R.E. Franklin.
- 10. **Further Developments in the Boltzmann-like Theory of Traffic Flow.** I. Prigogine, R. Herman and R. Anderson.
- 11. Discussion of Traffic Stream Measurements and Definitions. L.C. Edie.
- 12. Overtaking in Free Traffic. W. Leutzbach and P. Egert.
- 13. Some Delay-Flow Characteristics for Conflicting Traffic Streams. D.J. Buckley and W.R. Blunden.
- 14. Queuing at a Stop Sign. D. Evans, R. Herman and G.H. Weiss.
- 15. Queuing and Traffic Intersections. A.G. Hawkes.
- 16. A Computer Control System for Traffic Networks. A.J. Miller.
- 17. The Over-Saturated Intersection. D.C. Gazis and R.B. Potts.
- 18. Development of Traffic Signals for Area Traffic Control. B.M. Cobbe.
- 19. From the Laws of Traffic Flow to Traffic Cybernetics. W. von Stein.
- 20. Simulation of Traffic in a Large Network of Signalized Intersections. D.L. Gerlough and F.A. Wagner Jr..

- 21. Traffic and Simulation. S.L. Levy, M. Carter, and A. Glickstein.
- 22. A Simulation Program for Linked Traffic Signals. J.G.F. Francis and R.S. Lott.
- 23. An Urban Traffic Control Simulator. S. Young Rhee.
- 24. Efficiency in Road Traffic Flow. W. Helly.
- 25. The Analysis of Traffic Surveys by Electronic Computers. V.E. Miller.
- 26. The Problem of Careless Pedestrians. A.J. Mayne.
- 27. The Future of Traffic Flow Theory. F.A. Haight.
- 28. Some Unsolved Problems in Road Traffic Theory. J.C. Tanner.
- 29. Some Aspects of the Demand for Highway Travel. M.J. Beckmann.
- 30. An Economic Approach to Traffic Congestion. G.J. Roth.
- 31. **Pricing the Use of the Roads A Mathematical and Numerical Study.** A.J. Miller.
- 32. Mathematical Description of Life in Settled Areas and Derivations of Plan Layout Thereof as a Problem of Theoretical Town Planning. P. Freidrich.
- 33. Traffic Flow During the Journey to Work in the Central Area of a Town which has a Rectangular Grid for its Road System. R.J. Smeed and G.O. Jeffcoate.
- 34. **The Distances Between Pairs of Points in Forms of Simple Geometrical Shapes.** D. Fairthorne.

### 3rd Meeting, June 1965 (published 1967). New York, NY, USA. Edited by L.C. Edie, R. Herman, R. Rothery.

- 1. **Testing the Applicability of the Theory of Continuity on Traffic Flow.** W. Leutzbach.
- 2. **Propagation of Disturbances on Vehicle Platoons.** R. Herman and R. Rothery.
- 3. Generation and Propagation of Stop-Start Traffic Waves. L.C. Edie and E. Baverez.
- 4. **Density-Speed-Flow Dynamics in Single Lane Traffic Flow.** R.S. Foote and K.W. Crowley.
- 5. **A Model of Car Following Derived Empirically by Piece-Wise Regression Analysis.** A. Hanken and T.H. Rockwell.
- 6. Single-Lane Traffic Flow on Circular and Straight Tracks. R.E. Franklin.
- 7. Acceleration Noise in a Congested Signalized Environment. W. Helly and P.G. Baker.
- 8. Local Steady State Theory and Macroscopic Hydrodynamics of Traffic Flow. I. Prigogine, R. Herman and R. Anderson.
- 9. **Statistical Hydrodynamics of Traffic Flow.** R. Balescu, I. Prigogine, R. Herman and R. Anderson.
- 10. Markov Renewal Models in Traffic Flow Theory. W.S. Jewell.
- 11. Interchange Spacing and Driver Behavior Effects on Freeway Operations. T.W. Forbes, J.J. Mullin and M.E. Simpson.
- 12. A Contribution of the Statistical Analysis of Speed Distributions. J. Linder.
- 13. A Statistical Analysis of Speed-Density Hypotheses. J. Drake, J. Schofer and A. May.
- 14. On the Stability of Vehicular Traffic Flow—A Phenomenological Viewpoint. D.H. Evans.
- 15. The Application of Erlang's Theory to the Calculation of Road Traffic Capacity. T. Rallis.
- 16. Queuing in Rural Traffic. A.J. Miller.
- 17. A Model for Overtaking on a Two-Lane Road with Limited Visibility. J. Gustavsson.
- 18. A Mathematical Model for Traffic on a Two Lane Road. S. Erlander.
- 19. Convergence and Invariance Questions for Road Traffic with Free Overtaking. T. Thedéen.
- 20. Statistical Experiments with a Two-Lane Flow Model. R.M. Oliver and T. Lam.
- 21. **Optimum Assignment of a Reversible Lane in an Oversaturated Two-Way Traffic link.** D.C. Gazis.
- 22. Methods for Describing Time-Dependent Waits at Traffic Merges. D.P. Gaver, Jr..
- 23. Limit Theorems for the Output of Certain Types of Traffic Queues. M.F. Neuts.

- 24. **The Estimation of Origin-Destination Trips Using a Transition Matrix Method.** E. Kometani.
- 25. A Theoretical Model of Commuter Traffic in Towns. R.J. Smeed.
- 26. Traffic Assignment The ATCODE Model. B. Roy and H. Le Boulanger.
- 27. Testing a Traffic Assignment Algorithm. K.R. Overgaard.
- 28. Traffic Assignment with Flow-Dependent Journey Times. J. Almond.
- 29. Investment in a Network to Reduce the Length of the Shortest Route. T.M. Ridley.
- 30. Sky Count Measurement of Urban Congestion and Demand. T.D. Jordan.
- 31. **Optimal Policies for the Control of an Undersaturated Intersection.** R.B. Grafton and G.F. Newell.
- 32. Analysis of a Computer Control of an Isolated Intersection. M.C. Dunne and R.B. Potts.
- 33. **The Delay Problem for Crossing an n Lane Highway.** D.C. Gazis, G.F. Newell, P. Warren and G.H. Weiss
- 34. Pedestrian Queuing at an n Lane Intersection. G.H. Weiss.
- 35. **On the Theory of Deterministic Cyclic Traffic Flows in Networks.** W.R. Blunden and R.L. Pretty.
- 36. Intersection Control by Vehicle-Actuated Signals. R.W.J. Morris and P.G. Pak-Poy.
- 37. A Mixed-Integer Linear Program for Synchronizing Traffic Signals for Maximal Bandwidth. J.D.C. Little.
- 38. Mean Waiting Time at an Intersection. P.H. Fargier.
- 39. Numerical Results for Queuing for Gaps in a Traffic Stream. J.W. Cohen and S.K. de Lange.
- 40. **The Optimum Bus Service: A Theoretical Model for Large Uniform Urban Area.** E.M. Holyrod.
- 41. A Traffic Simulator with Minimum Hardware. F.G. Heath.
- 42. On Optimal Tolls for Highways, Tunnels, and Bridges. M.J. Beckmann.
- 43. A Behavioral-Specific Component to the System Construct for Traffic Flows. J.B. Ellis and D.N. Milstein.
- 44. The Importance of Traffic Problems in the Economic Comparison of Two Urban Planning Alternatives. R. Loue, M. Gauthier, C. Scherrer and M. Naim.
- 45. A Rostering Problem in Transportation. B.T. Bennett and R.B. Potts.

#### 4th Meeting, 19-21 June 1968 (published 1969). Karlsruhe, Germany. Edited by Wilhelm Leutzbach.

- 1. A Study of Driver-Aided Car Following. R.E. Fenton and W.B. Montano.
- 2. Some Aspects of the Stability of Traffic Flow. J. Treiterer.
- 3. **Frequency and Amplitude Dependence of Disturbances in a Traffic Stream.** R. Herman and R. Rothery.
- 4. **An Experimental Analysis of Single-Lane Time Headways in Freely Flowing Traffic.** L. Breiman, A.V. Gafarian, R. Lichtenstein and V.K. Murthy.
- 5. **The Hyperlang Probability Distribution A Generalized Traffic Headway Model.** R.F. Dawson.
- 6. Evaluation of Single- and Multi-Regime Traffic Flow Models. A.D. May and H.E.M. Keller.
- 7. **Control of the Lincoln Tunnel Traffic by an On-Line Digital Computer.** D.C. Gazis, B.T. Bennett, R.S. Foote and L.C. Edie.
- 8. On some Theoretical Traffic Problems. J. Gustavsson.
- 9. **On a Stochastic Study of Highway Traffic.** K.S.S. Iyer and K.B. Maheswaran Nambudripad.
- 10. On a Model for Rural Traffic on a Two-Lane Road. S. Erlander.
- 11. Simulation of Traffic Flow on Upgrades of Federal Expressways in Germany. G. Hoffmann.
- 12. Traffic Signal Synchronization of High Flows on a Two-Way Street. G.F. Newell.

- 13. Dispersal of Vehicle Platoons Downstream of a Traffic Signal Application of a Simulation Model. R. Wiedemann.
- 14. An Analysis of Delays to Vehicle Platoons at Traffic Signals. R.E. Allsop.
- 15. A Traffic-Flow Model for Signalized Street Networks. R. Böttger.
- 16. A New Approach to Traffic-Actuated Computer Control of Intersections. J.D. van Zijverden and H. Kwakernaak.
- 17. Some Results for a Deterministic Model of an Element of a Traffic Signals System. D.J. Buckley, Y.F. Leong and C.K. Ong.
- 18. Analysis of Required Main-Stream Headways at Autobahn Entrance Ramps. F.J. Breuer.
- 19. Delays at Pedestrian Crossing of Push-Button Type. T. Thedéen.
- 20. Some Problems of Inference Arising from the Fitting of Mathematical Models to an Unsignalized Priority Intersection. D.H. Reid.
- 21. 'TRANSYT' Traffic Network Study Tool. D.I. Robertson.
- 22. Traffic Simulation. R. Sagen.
- 23. Simulation of Traffic Flow through Large Traffic Nets. W.F. Schalkwijk.
- 24. Optimal Networks Joining n Points in a Plane. W.A. Horn.
- 25. The Comparative Evaluation of Idealized Road Networks. J.C. Tanner.
- 26. Routing Traffic in a Square Town to Minimize Route-Crossings. E.M. Holroyd.
- 27. Minimum-Cost Paths in Urban Areas. J.G. Wardrop.
- 28. A Mathematical Model for Trip Distribution. R.B. Potts and P.S. Loubal.
- 29. A Traffic Assignment Method, M. Bruynooghe. A. Gibert and M. Sakarovitch.
- 30. Probabilistic Models for Trip Distribution. Tsuna Sasaki.
- 31. Multiple Route Assignment and its Application to Capacity Restraint. J.E. Burrell.
- 32. Some Comments on the Traffic Assignment Problem. J.M.S. Simões Pereira.
- 33. Concept of a Traffic Management System; Experiences Gained from the ADECODE Traffic Assignment Model. H. Le Boulanger and P. Lissarague.
- 34. Allocation of Route Service in a Transportation Network. W.S. Jewell.
- 35. On the Definition of Characteristics of Traffic Flow. G. Tournerie.
- 36. On a Useful Probability Distribution for Partly Linked Traffic. F. Jacobs.
- 37. Modal Split Analysis and the Programming of Transportation Systems. M.J. Beckmann.
- 38. Obtaining Optimal Estimates of Nonresidential Trip Generation. J.W. Dickey.
- 39. **Dispatching Policies for Controlled Systems.** E.F. Bisbee, J.W. Devanney, D.E. Ward, R.J. von Saal and S. Kuroda.
- 40. Traffic Flow in Ramp Parking Facilities. G. Heymann.
- 41. Distances between Stops on Transport Services Minimizing Travel Times. A.G.M. Landau.

#### 5th Meeting, 16-18 June 1971 (published 1972). Berkeley, CA, USA. Edited by Gordon F. Newell.

- 1. **The Starting Characteristics of Automobile Platoons.** Robert Herman, Tenny Lam, and Richard Rothery.
- 2. Some Properties of the Fundamental Relations of Traffic Flow. C.C. Wright.
- 3. On Vehicle Longitudinal Dynamics. James G. Bender and Robert E. Fenton.
- 4. Car Following and Spectral Analysis. John N. Darroch and Richard Rothery.
- 5. A Study of Individual Journey Series: An Integrated Interpretation of the Transportation Process. Velibor Vidakovic.
- 6. Modal Choice in Urban Areas. C.G.B. Mitchell and J.M. Clark.
- 7. Minimizing Economic Segregation Through Transit System Changes: A Goal **Programming Approach.** John W. Dickey.
- 8. A Critique of Entropy and Gravity in Travel Forecasting. Martin J. Beckmann and Thomas F. Golob.
- 9. Estimation of Person Trip Patterns Through Markov Chains. Tsuna Sasaki.

- 10. A New Look at the Traffic Assignment Problem. I. Jeevanantham.
- 11. Equilibrium and Marginal Cost Pricing on Road Network with Several Traffic Flow Types. Maurice Netter.
- 12. A Study of the Travel Patterns in a Corridor with Reference to the Assignment Principles of Wardrop. Sam Yagar.
- 13. Probabilistic Aspects of Traffic Assignment. Heinz Beilner and Friedrich Jacobs.
- 14. Theory of Traffic Assignment to a Road Network. Tetsuzo Hoshino.
- 15. Nine Estimators of Gap-Acceptance Parameters. Alan J. Miller.
- 16. Theoretical Analysis of Expressway Ramp Merge Controls as Single-Server and Tandem Queues. Allan Marcus.
- 17. Sensitivity of Delay at Fixed Time Traffic Signals to Small Errors in the Observations Used for Calculating the Signal Settings. Richard E. Allsop.
- 18. On-Line Feedback Control of Offsets for Area Control of Traffic. Masaki Koshi.
- 19. **Optimal Synchronization of Traffic Signal Networks by Dynamic Programming.** Nathan Gardner.
- 20. Synchronization of Traffic Signals in a Network for Loss Minimizing Offsets. Iwao Okutani.
- 21. Network Flow Model of the Australia-Europe Container Service. K.J. Noble and R.B. Potts.
- 22. A Theoretical Study of Bus and Car Travel in Central London. F.V. Webster and R.H. Oldfield.
- 23. **Public Transportation Line Positions and Headways for Minimum Cost.** Bernard F. Byrne and Vukan R. Vuchic.
- 24. Study of a Collective Taxi System. P.H. Fargier and M. Cohen.
- 25. Investigation of Sorting and Train Formation Schemes for a Railroad Hump. M.W. Siddiqee.
- 26. A Strategic Model for Urban Transport Planning. J.C. Tanner.
- 27. Decentralization: A Mathematical Explanation. Rodney J. Vaughan.
- 28. Optimal Form of a Class of Collection-Distribution Networks. Ezra Hauer.
- 29. Minimum Cost Paths When the Cost Per Unit Length Depends of Location and Direction. John G. Wardrop.
- 30. Urban Density Models. C. Pearce, Pippa Simpson and W. Venables.

#### 6th Meeting, 26-28 August 1974. Sydney, Australia. Edited by D.J. Buckley.

- 1. The Hysteresis Phenomenon in Traffic Flow. Joseph Treiterer and Jeffrey A. Myers.
- 2. Stability of Vehicle Platoons. Uwe Köhler.
- 3. Trip Time Characteristics of Journeys to and from Work. Robert Herman and Tenny-Lam.
- 4. **Definitions and Relationship for Three Different Time Intervals for Delayed Vehicles.** Wilhelm Leutzbach and Uwe Köhler.
- 5. Capacity Funnels Near On-Ramps. D.J. Buckley and Sam Yagar.
- 6. Freeway Priority Entry Control to Favor Multi-Passenger Vehicles. Khosrow Ovaici and Adolf D. may.
- 7. Determination of Equilibrium Conditions for Traffic on a Two-Lane Road. P.G. Gipps.
- 8. Queues and Overtakings on Two-Lane Roads. Friedrich Jacobs.
- 9. Relation Between Space-Time Parameters of Traffic Flow and Locally Determined Parameters on Two-Lane Rural Highways. W. Brilon.
- 10. Effect of Stochastic Traffic Flow on Perceived Noise. Allan H. Marcus.
- 11. **An Investigation of Practicability of Some Traffic Flow Models.** V.F. Babkov and V.V. Silyanov.

- 12. Location and Capacity of Unsignalized Exits and Crossings Inbetween Coordinated Signalized Intersections. Ezra Hauer.
- 13. Bus Priority in a Network of Fixed Time Signals. D.I. Robertson and R.A. Vincent.
- 14. **Dynamic Allocation of Parallel Congested Traffic Channels.** Kai-Ching Chu and Denos C. Gazis.
- 15. A Gravity Model for Trip Distribution. Shogo Kawakami.
- 16. Some Possibilities for Using Traffic Control to Influence Trip Distribution and Route Choice. Richard E. Allsop.
- 17. A Harmonic Series Model of the Trip Chains. Velibor S. Vidakovic.
- 18. Estimating Daily Traffic Totals from Incomplete Data. Christopher Wright.
- 19. Transport Demand Models Based on Personal Characteristics. A.J. Harris and J.C. Tanner.
- 20. Entropy and Utility in Traffic Modeling. Stein Hansen.
- 21. **Traveler Decisions and Traffic Flows: a Behavioral Theory of Network Equilibrium.** Martin J. Beckmann and Thomas F. Golob.
- 22. Equilibrium Conditions in Traffic Assignment. K.M. Anantharamaiah.
- 23. Traffic Assignment by Analogy to Electric Circuit. Tsuna Sasaki and Hiroshi Inouye.
- 24. The Effect of Queuing on Traffic Assignment in a Simple Road Network. V.F. Hurdle.
- 25. The Effectiveness of Car Pools in Urban Areas. Elizabeth Cousins.
- 26. Optimal Network Geometry. G.F. Newell.
- 27. A Mathematical Programming Model for Bus traffic in a Network. S. Erlander and S. Schéele.
- 28. Minimum Fleetsize Models for Transportation Systems. F.J.M. Salzborn.
- 29. A method of Planning Trains on a General Yard Network. Shigemichi Suzuki.
- 30. Urban Railway Capacity in Peak Periods. Phillip Rice.
- 31. The Effects of Social and Economic Variables on Choice of Travel Model for the Work Trips. Peter R. Stopher and Arnim H. Meyburg.
- 32. Estimation of Person Trip Patterns and Modal Split. Katsunao Kondo.
- 33. Travel by a Combination of Modes. P.B. Goodwin.
- 34. **Discouragement Queuing Models for Single Berth Bulk-Commodity Ports.** S.G. Gooneratne and D.J. Buckley.
- 35. Optimal Elevator Control Using On-Line Computer to Divide Building into Floating Equal-Interval Zones. D. Levy, D. Pessen and J. Ben Uri.

#### 7th Meeting, 14-17 August 1977. Kyoto, Japan. Edited by Tsuna Sasaki and Takeo Yamaoka.

- 1. Traffic in a Linear Town. R.J. Smeed.
- 2. Analysis of Car-Following Experiments Employing Spectral Analysis. Robert Herman, Richard Rothery and Ronald G. Rule.
- 3. An Analysis and Investigation of Philosophical Contrasts in Traffic Models. Sam Yager.
- 4. **Description of Traffic Flow by the Process of Slowness.** W. Brilon.
- 5. Traffic Flow in Upgrade-Bottlenecks. W. Leutzbach and R. Weidemann.
- 6. Studies of a Platoon Dispersion Model and Its Practical Implication. Joseph K. Lam.
- 7. A Time0Sequence Analysis for a Two-Regime Traffic Flow Model. Avishai Ceder.
- 8. A Non-Linear Traffic Model and Practical Capacity on Snowy and Icy Surface. Keiichi Sato and Hideo Igarashi.
- 9. The Impact of Dynamic Effects of Traffic Flow on the Steady-State Speed-Density Characteristic. Michael Cremer and Hartmut Keller.
- 10. Superimposed Alternating Renewal Streams and Delay Models Involving Multi-Lane Major Road Traffic at an Uncontrolled Intersection. C.E.M. Pearce.
- 11. **Priority for Buses at Signal-Controlled Junctions: Some Implications for Signal Timings.** Richard E. Allsop.

- 12. **Time-Inhomogeneous Signalized Intersection as a Discrete Infinite Dam.** Do Le Mihn and W.R. Blunden.
- 13. Traffic Signals Synchronization for an Oversaturated Network. Iwao Okutani.
- 14. Stochastic Simulation of Traffic Flow as a Complex System. V.V. Silyanov.
- 15. The Effect of Queues on Traffic Assignment to Freeways. G.F. Newell.
- 16. Demand Predictors for Computerized Freeway Control Systems. Menahem Eldor.
- 17. **The Interpretation of Vehicle Detector Output by Canonical Variates Analysis.** P.G. Gipps.
- 18. **Discrete Time Series Models of a Freeway Density Process.** A.V. Gafarian, J. Pahl and T.L. Ward.
- 19. Development and Application of Traffic Management Models An Executive Summary. Adolf. D. May, Thomas J. Clausen and Abraham J. Kruger.
- 20. Basic Study on Expressway Traffic Volume Measurement by Detectors. Yasuji Makigami.
- 21. Decentralized Real-Time Control of Congested Traffic Networks. Kai-Ching Chu.
- 22. A Mathematical Analysis of Route Control. Rahmi Akcelik.
- 23. A Network Theoretic Formulation and Algorithms for the Traffic Assignment Problems. Yoshikazu Nishikawa and Ichiro Nakahori.
- 24. The Calculation of Mutual Consistent Signal Settings and Traffic Assignment for a Signal-Controlled Road Network. J.A. Charlesworth.
- 25. A Traffic Assignment Model for Mixed Traffic Consisting of Slow and Fast Vehicles. K.M. Anantharamaiah.
- 26. Analysis and Control of Transportation Networks by Frank-Wolfe Decomposition. Nathan H. Gartner.
- 27. Algorithms for Exact Solutions and Approximative Solutions on the Optimal Transportation Network with an Application. Toshiro Edamura and Hideo Moritsu.
- 28. Mathematical Programming and Constraints in Strategic Lane Use/Transport Planning. J.A. Black and W.R. Blunden.
- 29. Assignment of Buses in a Coordinated Rail and Bus Transit System. S. Chandana Wirasinghe.
- 30. Optimum Location of Stops on a Bus Route. R.J. Vaughan and E.A. Cousins.
- 31. An Analysis of Passenger Queues at Stations in Series. Masanobu Watanabe, Hideo Miyahara and Toshiharu Hasegawa.
- 32. An Approximate Analytic Model of Many-To-One Demand Responsive Transportation Systems. Carlos F. Daganzo, Chris T. Hendrickson and Nigel H.M. Wilson.
- 33. Practical urban Railway Capacity A World Review. Phillip Rice.
- 34. Allocation and Pricing in Public Transportation and the Free Rider Theorem. Martin J. Beckmann.
- 35. **Man-Machine System for Merchant Fleet Operation Scheduling.** V.D. Levy, S.P. Lvov and S.E. Lovetsky.
- 36. Statistical Analysis of Travel Behavior: Some Methodological Considerations. Heinz Hautzinger.
- 37. The Newton-Kantorovich Method for Solving the Gravity Model in Traffic Planning. Sven Erlander.
- 38. Dynamic Models of Modal Choice. M.R. Wigan and N.J. Paulley.
- 39. A Quantified Description of Risky Pedestrian Behavior at Signalized Intersections. Hans-Georg Retzko and Peter Häckelmann.
- 40. A Distance Parameter of the Trip-Chain Process. Velibor S. Vidakovic.

### 8th Meeting, 24-26 June 1981 (published 1983). Toronto, Canada. Edited by V.F. Hurdle, E. Hauer, and G.N. Steuart.

- 1. A New Framework for the Microeconomic Analysis and Classification of Transportation Costs. Alan Abouchar.
- 2. **Point Process models for Freeway Incident Detection.** Samir A. Ahmed and Allen R. Cook.
- 3. **On Network Equilibria with Generalized Cost Functions.** Andre Babin, Michael Florian, and Heinz Spiess.
- 4. **Fundamental Economic Analysis for Transit Routes: Demand-Cost Relationships.** James H. Banks.
- 5. The Accuracy of Gravity Model Parameter Estimates. Michael G.H. Bell.
- 6. A Decision-Making Framework for the Evaluation of Climbing Lanes on Two-Lane Two-Way Rural Roads. Jan L. Botha and Adolf D. May.
- 7. **Dynamic Identification of Flows from Traffic Counts at Complex Intersection.** Michael Cremer and Hartmut Keller.
- 8. **Convergence of a Network Decomposition Algorithm for the Traffic Equilibrium Model.** Stella Dafermos.
- 9. Parking Studies, Gap Acceptance and the Intervening Opportunities Model: A Unified Quick Calibration/Estimation. Carlos F. Daganzo.
- 10. Gap Acceptance: Myth and Reality. J. Darzentas.
- 11. Influence of Vehicle size and Performance on Intersection Saturation Flow. Leonard Evans and Richard W. Rothery.
- 12. Effects of the Choice of Departure Time on Road Traffic Congestion: Theoretical Approach. Paul-Henri Fargier.
- 13. Optimal Station Location for a Two Hierarchy Transit System. Masaharu Fukuyama.
- 14. Waiting to Cross a Major Stream at an Uncontrolled Road Junction. John C. Golias.
- 15. Characteristics of Travel Time and Dynamic User Equilibrium for Travel-to-Work. Chris Hendrickson, Daniel Nagin, and Edward Plank.
- 16. Gravity Model Fitting with Both Origin-Destination Data and Modeled Trip-End Estimates. Howard R. Kirby and John D. Murchland.
- 17. **A Time Dependent Markov Renewal Model of Trip Chaining.** Ryuichi Kitamura and Tenny N. Lam.
- 18. Some Findings and an Overview on Vehicular Flow Characteristics. M. Koshi, M. Iwasaki, and I. Ohkura.
- 19. **On a Simulation Model for the Traffic Stream in a Freeway Merging Area.** Yasuji Makigami, Tsunehiko Nakanishi, Masahito Toyama, and Ryoichi Mizote.
- 20. An Analysis of Heuristics for the Continuous Network Design Problem. Patrice Marcotte.
- 21. Blocking Effects for Synchronized Signals. G.F. Newell.
- 22. A Theoretical Study of Traffic Assignment and Traffic Control. M.J. Smith.
- 23. The Garage Constrained-Balanced Vehicle Schedule Minimum Fleet Size Problem. Helman I. Stern and Avishai Ceder.
- 24. Methods of Forecasting Kilometers per Car. J.C. Tanner.
- 25. Saturation Flow at Signalized Intersections through a Magnifying Glass. Stan Teply.
- 26. Computer Simulation as an Aid to the Design of Priority Intersections. Marian Tracz.
- 27. Validation of the ME2 model for Estimating Trip Matrices from Traffic Counts. D. Van Vliet and L.G. Willumsen.
- 28. **Some Improvements in the Estimation of an OD Matrix from Traffic Counts.** Henk J. Van Zuylen.
- 29. Hysteresis and Collapse: a Theory of Parking Enforcement. Christopher Wright.

9th Meeting, 11-13 July 1984. Delft, Netherlands. Edited by J. Volmuller and R. Hamerslag.

- 1. An Approximative Analysis of the Hydrodynamic Theory on Traffic Flow and a Formulation of a Traffic Simulation Model. Tsuna Saski, Masaharu Fukuyama and Yoshiharu Namikawa.
- 2. Macroscopic Freeway Model for Dense Traffic Stop-Start Waves and Incident Detection. Reinhart D. Kühne.
- 3. Headway Distribution Model Based on the Distinction Between Leaders and Followers. Takeshi Chishaki and Youichi Tamura.
- 4. **DYNEMO: A Model for the Simulation of Traffic Flow in Motorway Networks.** Thomas Schwerdtfeger.
- 5. **Improved Continuum Models of Freeway Flow.** Panos G. Michalopoulos and Dimitrios E. Beskos.
- 6. **Delay at a Junction where there is Priority for Buses.** Benjamin G. Heydecker.
- 7. Study and Numerical Modeling of Non-Stationary Traffic Flow Demands at Signalized Intersection. Janusz Chodur and Marian Tracz.
- 8. **A Traffic Flow Model With Time Dependent O-D Patterns.** Rodney Vaughan, V.F. Hurdle and Ezra Hauer.
- 9. **Evaluation of Dimensionality Reduction on Network Traffic Pattern Recognition.** Shih-Miao Chin and Amir Eiger.
- 10. Optimal Signal Controls on Congested Networks. Caroline S. Fisk.
- 11. Stability and Sensitivity Analysis for the General Network Equilibrium-Travel Choice Model. Stella Dafermos and Anna Nagurney.
- 12. **Bounding the Solution of the Continuous Equilibrium Network Design Problem.** Patrick T. Harker and Terry L. Friesz.
- 13. Equilibrium Flows in a Network with Congested Links. Iwao Okutani.
- 14. A Descent Algorithm for Solving a Variety of Monotone Equilibrium Problems. M.J. Smith.
- 15. **Modeling Inter Urban Route Choice Behavior.** M. Ben-Akiva, M.J. Bergman, A.J. Daly and R. Ramaswamy.
- 16. Optimal Transit Timetables for a Fixed Vehicle Fleet. Avishai Ceder and Helman I. Stern.
- 17. **The Dynamic Vehicle Allocation Problem with Uncertain Demands.** Warren B. Powell, Yosef Sheffi and Sebastien Thiriez.
- 18. **The Prediction of Interregional Goods Vehicle Flows: Some New Modeling Concepts.** Heinz Hautzinger.
- 19. Estimating Time-dependent Trip Matrices from Traffic Counts. L.G. Willumsen.
- 20. Matrix Entry Estimation Errors. Chris Hendrickson and Sue McNeil.
- 21. A Systems Dynamics Approach to the Estimation of Entry and Exit OD Flows. Michael Cremer and Hartmut Keller.
- 22. Log-Linear Models for the Estimation of Origin-Destination Matrices from Traffic Counts: An Approximation. Michael G.H. Bell.
- 23. **Transferability of Disaggregate Trip Generation Models.** Geoffrey Rose and Frank S. Koppelman.
- 24. A Model of Constrained Binary Choice. Ryuichi Kitamura and Tenny N. Lam.
- 25. Estimation of Disaggregate Regression Models of Person Trips Generation with Multiday Data. Frank S. Koppelman and Eric I. Pas.
- 26. Disaggregate Models of Mode Choices: An Assessment of Performance and Suggestions for Improvement. Janusz C. Supernak.
- 27. Models of Employee Work Schedule. Paul P. Jovanis and Anthony Moore.

## 10th Meeting, 8-10 July 1987. Cambridge, MA, USA. Edited by Nathan H. Gartner and Nigel H.M. Wilson.

- 1. **Performance of Urban Traffic Networks.** Hani S. Mahmassani, James C. Williams and Robert Herman.
- 2. **Queue Evolution on Freeways Leading to a Single Core City During the Morning Peak.** Masao Kuwahara and Gordon F. Newell.
- 3. Analysis of the Effects of Parameter Estimation Error on Transportation Network Equilibrium Models. Geoffrey Rose, Frank S. Koppelman and Mark S. Daskin.
- 4. **Traffic Control and Traffic Assignment in a Signal-Controlled Network with Queuing.** M.J. Smith.
- 5. A Theoretical Model to Calculate Speed Distribution as a Function of Density. Dirk. Heidemann.
- 6. **Modeling and Study of Speed and Bunch Distributions Considering Fluctuations of Traffic Flow.** Youichi Tamura and Takeshi Chisyaki.
- 7. Freeway Speed Distribution and Acceleration Noise Calculations from a Stochastic Continuum Theory and Comparison. Reinhart D. Kühne.
- 8. Modeling and Filtering of Freeway Traffic Flow. S.A. Smulders.
- 9. Calculation of Signal Settings to Minimize Delay at a Junction. Benjamin G. Heydecker and Ian W. Dudgeon.
- 10. Calculations of Optimum Fixed-Time Signal Programs. Klaus Möller.
- 11. An Analysis of Traffic Performance of Major/Minor Priority Junctions With Non-Stationary Flow Demands. Marian Tracz and Stanislaw Gaca.
- 12. A Stochastic Environment for the Adaptive Control of Single Intersections. B. Betrò, G. Schoen and M.G. Speranza.
- 13. Simulation Study of OPAC: A Demand-Responsive Strategy for Traffic Signal Control. Hobih Chen, Stephen L. Cohen, Nathan H. Gartner and Charles C. Liu.
- 14. A Knowledge Based Expert System Architecture for Computer Aided Analysis and Design of Intersections. Chris Hendrickson, Carlos Zozaya-Gorostiza and Sue McNeil.
- 15. **Real-Time Identification of O-D Network Flows from Counts and Urban Traffic Control.** Hartmut Keller and Gerhard Ploss.
- 16. Theoretical Considerations for Signal Timing Plan Selection in UTCS First Generation Control Systems. Shih-Miao Chin.
- 17. Delay-Minimizing Control and Bandwidth-Maximizing Control of Coordinated Traffic Signals by Dynamic Programming. Mamoru Hisai.
- 18. **The Interaction Between Signal Control Policies and Route Choice.** Michael J. Smith, Tom Van Vuren, Benjamin G. Heydecker and Dirck Van Vliet.
- 19. Updating of Volume-Density Relationships for an Urban Expressway Control System. H. Akahane and M. Koshi.
- 20. **Traffic Responsive Control of Freeway Networks by a State Feedback Approach.** Michael Cremer and Sigund Fleischmann.
- 21. Fuzzy On-Ramp Control Model on an Urban Expressway and Its Extension. Tsuna Sasaki and Takamasa Akiyama.
- 22. The Kalman Filtering Approaches in Some Transportation and Traffic Problems. Iwao Okutani.
- 23. Equilibrium in Competitive Urban Mass Transportation Markets. Patrick T. Harker and Seung-Chan Choi.
- 24. Stochastic Properties of Flows in Freight Consolidation Networks. Warren B. Powell and Hugo P. Simão.
- 25. Methods to Combine Different Data Sources and Estimate Origin-Destination Matrices. Moshe Ben-Akiva.

26. Airport Terminal Geometries for Minimal Walking Distances. S.C. Wirasinghe, S. Bandara and U. Vandebona.

#### 11th Meeting, 18-20 July 1990. Yokohama, Japan. Edited by Masaki Koshi.

- 1. A Theoretical Model to Calculate Time-Headway Distributions as a Function of Traffic Density. D. Heidemann.
- 2. A Merging Probability Calculation Method Considering Multiple Merging Phenomenon. Y. Makigami and T. Matsuo.
- 3. Roundabout Capacity and the Associated Delay. R. Troutbeck.
- 4. **Modeling Crowd Behavior and Movement: Application to Makkah Pilgrimage.** S.A.H. Algadhi and H.S. Mahmassani.
- 5. Changes in Traffic Flow Due to Parking Activity in Urban Street. F. Corriere and S. Saglimbeni.
- 6. A Comprehensive Concept for Simultaneous State Observation, Parameter Estimation and Incident Detection. M. Cremer and H. Schütt.
- 7. A Mathematical Theory for Related Long Term Developments of Real Traffic and Safety. S. Oppe and M.J. Koornstra.
- 8. Measures of Accident Clustering. A.J. Nicholson.
- 9. On the Use of Accident and Conviction Counts to Trigger Action. E. Hauer and K. Quaye.
- 10. An Integrated System for Traffic Safety and Accident Analysis. M.Y.K. Lau, A.D. May, R.N. Smith and H.F. Huang.
- 11. **Drivers' Speed Regulation When Negotiating Intersections.** F. Saad, P. Delhomme and P. Van Elslande.
- 12. **Emergency Maneuvers at Junctions Using a Driving Simulator.** G. Malaterre and D. Lechner.
- 13. User-Equilibrium Traffic Assignment by Continuum Approximation of Network Flow. T. Sasaki, Y. Iida and H. Yang.
- 14. **Two models for Predicting Dynamic Stochastic Equilibria in Urban Transportation Networks.** P.C. Vythoulkas.
- 15. Dynamic Traffic Assignment and Dynamic Traffic Control. M.J. Smith and M.O. Ghali.
- 16. Application of Neural Network Model to Traffic Engineering Problem: Self-Organizing Approach to Traffic Management System. T. Nakatsuji and T. Kaku.
- 17. Parallel Distributed Processing on Neural Network for Some Transportation Equilibrium Assignment Problems. T. Akamatsu, Y. Tsuchiya and T. Shimazaki.
- 18. **The Efficiency Principle and Combined Trip Distribution and Modal Split Models.** J.T. Lundgren.
- 19. Design of Bus Routes for a Many-to-Few Travel Demand. S. Y. Kho.
- 20. Re-Examination of Newell's Dispatching Policy and Extension to a Public Bus Route with Many to Many Time-Varying Demand. S.C. Wirasinghe.
- 21. On the Coordination of Inbound and Outbound Schedules at Transportation Terminals. C.F. Daganzo.
- 22. Activity Analysis of the Hub and Spoke System. M.J. Beckmann.
- 23. Optimum Geometries for Satellite Type Airport Terminals. S. Bandara.
- 24. **Comparisons of Transit Pricing Policy Based on Travel Distance.** J.H. Ling and M.A.P. Taylor.
- 25. Temporal Variation of Bicycle Traffic Flows in The Netherlands. C.F. Jaarsma.
- 26. Estimation of Travel Demand Models from Multiple Data Sources. M. Ben-Akiva and T. Morikawa.

- 27. Heterogeneity and State Dependence in Household Car Ownership: A Panel Analysis Using Ordered-Response Probit Models with Error Components. R. Kitamura and D.S. Bunch.
- 28. The Use of Reserve Capacity and Delay as the Complementary Measures of Junction Effectiveness. M. Tracz, J. Chodur and S. Gondek.
- 29. Another Way of Optimal Signal Plan Calculation at an Isolated Intersection. S. Reljić, S. Stojanović and M. Stojić.
- 30. Decision of Timings of Signal Program Switching in Pretime Multi-Program Control. M. Kuwahara, and M. Koshi.
- 31. Traffic Control (at Alternate One-Way Sections) During Lane Closure Periods of a Two-Way Highway. A. Ceder and A. Regueros.
- 32. Modeling of Queue Probability Distribution at Traffic Signals. P.S. Olszewski.
- 33. Stochastic Delays on Signalized Arterial Highways. G.F. Newell.
- 34. A Continuous-Time Formulation for Traffic-Responsive Signal Control. B.G. Heydecker.
- 35. A Probabilistic Approach to the Optimization of Traffic Signal Settings in Discrete Time. M.G.H. Bell.
- 36. Motion A New Traffic Control Concept Based on Real-Time Origin-Destination Information. G. Ploss, P. Philips, D. Inaudi and H. Keller.

#### 12th Meeting, 21-23 July 1993. Berkeley, CA, USA. Edited by Carlos F. Daganzo.

- 1. **Flow Around Distortions in a Dense Rectangular Grid Road Network I Theory.** G.F. Newell.
- 2. Flow Around Distortions in a Dense Rectangular Grid Road Network II Examples. G.F. Newell.
- 3. Effects of Merging Lane Length on the Merging Behavior at Expressway On-Ramps. H. Kita.
- 4. **Evaluation of Weaving Traffic Stream Using Merging Probability.** Y. Makigami and T. Iizuka.
- 5. Approximate Reasoning Models for Route Choice Behavior in the Presence of Information. T. Lotan and H.N. Koutsopoulos.
- 6. Risk Assignment: A New Traffic Assignment Model Considering the Risk of Travel Time Variation. T. Uchida and Y. Iida.
- 7. A Variational Control Formulation of the Simultaneous Route and Departure-Time Choice Equilibrium Problem. D. Bernstein, T.L. Friesz, R.L. Tobin and B.W. Wie.
- 8. Dynamic Traffic Assignment with Arrival Time Costs. B.N. Janson and J. Roble.
- 9. Traffic Assignment, Traffic Control and Road Pricing. M.O. Ghali and M.J. Smith.
- 10. A Mathematical Model for Dynamic Traffic Assignment. J.D. Addison and B.G. Heydecker.
- 11. **Dynamic Equilibrium Assignment with Queues for a One-to-Many OD Pattern.** M. Kuwahara and T. Akamatsu.
- 12. Cost Based Approach to Scheduling Travel Time on a Public Transportation Route. S.C. Wirasinghe.
- 13. Scheduling Time Transfers at Hub Terminals. R.W. Hall and C. Chong.
- 14. High-Throughput Intermodal Container Terminals: Technical and Economic Analysis of a New Direct-Transfer System. B.J. de Castilho.
- 15. A Two-Objective Shipping Problem Between Two Points with Periodicity and Continuity Constraints. A. Imai.
- 16. Weighting Methods for Choice-Based Panels with Correlated Attrition and Initial Choice. R. Kitamura, R.M. Pendyala and K.G. Goulias.
- 17. Models of Delay and Accident Risk to Pedestrians. L. Song, M.C. Dunne and J.A. Black.

- 18. The Use of Forecasting Models in the Evaluation of Safety Interventions: A Theoretical Enquiry. K. Quaye and E. Hauer.
- 19. Improved Estimation of Loading Characteristics from Weigh-in-Motion Measurements. M.M. Slavik.
- 20. Reaction and Anticipation in the Car-Following Behavior. H. Ozaki.
- 21. Non-linearity Stochastics of Unstable Traffic Flow. R.D. Kühne and R. Beckschulte.
- 22. A Formulation for the Reaction Time of Traffic Flow Models. J.M. del Castillo, P. Pintado and F.G. Benitez.
- 23. On Predictive Control Schemes in Dynamic Rerouting Strategies. M. Cremer, F. Meissner and S. Scherieber.
- 24. **Stochastic User Equilibrium Assignment and Iterative Balancing.** M.G.H. Bell, W.H.K.Lam, G. Ploss and D. Inaudi.
- 25. A Statistical Theory for Estimation of Origin-Destination Parameters from Time-Series of Traffic Counts. G.A. Davis.
- 26. Dynamic Origin-Destination Matrix Estimation and Prediction for Real-Time Traffic Management Systems. K. Ashok and M.E. Ben-Akiva.
- 27. Alternative Approaches to Short Term Traffic Forecasting for Use in Driver Information Systems. P.C. Vythoulkas.
- 28. A Bayesian Approach to Update Traffic Flows from Traffic Counts. M. Pursula and V. Pastinen.
- 29. A Theoretical Model for Distributions of Speeds and Time-Headways on Two-Lane Roads. D. Heidemann.
- 30. Effects of the Platoon Dispersion on the Optimizing of Fixed-Time Signal Control in Road Networks. H.G. Retzko and M. Schenk.
- 31. Traffic Behavior During Lane Closure Periods of Two-Lane Road. A. Ceder.
- 32. The Characteristics of the Times Drivers are Stopped at Unsignalized Intersections. R.J. Troutbeck.

#### 13th Meeting, 24-26 July 1996. Lyon, France. Edited by Jean-Baptiste Lesort.

- 1. Estimation of Dynamic O-D Distributions for Urban Networks. G.L. Chang and X. Tao.
- 2. **Monitoring Traffic Load Profiles with Heterogeneous Data Source Configurations.** M. Cremer and S. Schrieber.
- 3. Nonparametric Traffic Flow Prediction Using Kernal Estimator. N.E. El Faouzi.
- 4. A Basic Study of Expressway Travel Time Estimation Using a Bottleneck Simulation Model. Y. Makigami, K. Taguro and M. Yamashita.
- 5. A Continuous Time Link Model for Dynamic Network Loading Based on Travel Time Function. V. Astarita.
- 6. A Queuing Theory Approach to Speed-Flow-Density Relationships. D. Heidemann.
- 7. A New Approach to Problems of Traffic Flow Theory. B.S. Kerner, P. Konhaüser and M. Shilke.
- 8. Flows Around Distortions in a Dense Rectangular Grid Road Network III: Coupling of Cross-Flows. G.F. Newell.
- 9. **A Time-Dependent Multi-Class Path Flow Estimator.** M.G.H. Bell, W.H.K. Lam and Y. Iida.
- 10. A Formulation and Solution Algorithm for a Multi-Class Dynamic Traffic Assignment Problem. B. Ran, H.K. Lo and D.E. Boyce.
- 11. **Implementation of an Efficient Algorithm for the Multiclass Assignment Problem.** P. Marcotte, S. Nguyen and K. Tanguay.
- 12. Asymmetric Multiclass Traffic Assignment: A Coherent Formulation. Ph. Toint and L. Wynter.

- 13. **Bayesian Theory and Cluster Analysis in the Identification of Accident Blackspots.** M. Trácz and M. Nowakowska.
- 14. Choosing Comparison Groups for Road Safety Countermeasure Evaluation. K. Quaye.
- 15. Developing a Set of Fuel Consumption and Emissions Models for Use in Traffic Network Modeling. M.A.P. Taylor and T.M. Young.
- 16. **Multi Sensor, Multivariate and Multiclass Incident Detection System for Arterial Streets.** N.E. Thomas.
- 17. Stationary States in Stochastic Process Models of Traffic Assignment: A Markov Chain Monte Carlo Approach. M.L. Hazelton, S. Lee and J.W. Polak.
- 18. An Exact Expression of Dynamic Equilibrium. B.G. Heydecker and J.D. Addison.
- 19. A Distributed Algorithm for the Dynamic Traffic Equilibrium Assignment Problem. M.B. Wilson and M.J. Smith.
- 20. Congestion Pricing for Urban Bimodal Transportation Networks. P. Ferrari.
- 21. A Discrete-Continuous Analysis of Time Allocation to Two Types of Discretionary Activities Which Accounts for Unobserved Heterogeneity. R. Kitamura, T. Yamamoto, S. Fujii and S. Sampath.
- 22. The Theory and Practice of Dual Criteria Assignment Model With a Continuously Distributed Value-of-Time. F.M. Leurent.
- 23. Optimal Variable Road-Use Pricing on a Congested Network of Parallel Routes with Elastic Demand. H.J. Huang and H. Yang.
- 24. **Models of Freeway Lane Changing and Gap Acceptance Behavior.** K.I. Ahmed, M.E. Ben-Akiva, H.N. Koutsopoulos and R.B. Mishalani.
- 25. A Car-Following Model Based on Lighthill-Whitham Theory. J.M. Del Castillo.
- 26. **Research Into Mixed Traffic Flow Characteristics by Means of Simulation.** V.V. Silyanov and O.I. Tonkonozhenkov.
- 27. Public Transportation Assignment with Passenger Strategies for Overlapping Route Choice. Y. Israeli and A. Ceder.
- 28. Optimization of Train Timetables to Achiever Minimum Transit Times and Maximum Reliability. A. Higgins, L. Ferrerira and E. Kozan.
- 29. Multicriteria Optimal Control in a Network of Signalized Intersections. S. Reljic.
- 30. The Nature of Freeway Gridlock and How to Prevent It. C.F. Daganzo.
- 31. The Godunov Scheme and What it Means for First Order Traffic Flow Models. J.P. Lebacque.
- 32. The Generalized Bimodal Traffic Stream Model and Two-Regime Theory. D.D. Rui, P. Nelson and A. Sopasakis.
- 33. A Modified Logit Route Choice Model Overcoming Path Overlapping Problems. Specification and some Calibration Results for Interurban Networks. E. Cascetta, A. Nuzzolo, F. Russo and A. Vitetta.
- 34. Stochastic Optimization of Combined Traffic Assignment and Signal Control Junction Modeling. S. Lee and M. Hazelton.
- 35. Dynamic Dispatching Strategies Under Real-Time Information for Carrier Fleet Management. A.C. Regan, H.S. Mahmassani and P. Jaillet.

#### 14th Meeting, 20-23 July 1999. Jerusalem, Israel. Edited by Avishai, Ceder.

- 1. Macroscopic Traffic Flow Models: A Question of Order. J.P. Lebacque and J.B. Lesort.
- 2. Macroscopic Multiple User-Class Traffic Flow Modeling: A Multilane Generalization Using Gas-Kinetic Theory. S.P. Hoogendoorn and P.H.L. Bovy.
- 3. The Chapman-Enskog Expansion: A Novel Approach to Hierarchical Extension of Lighthill-Whitham Models. P. Nelson and A. Soposakis.
- 4. The Lagged Cell-Transmission Model. C.F. Dagazno.

- 5. **Observations at a Freeway Bottleneck.** M.J. Cassidy and R.L. Bertini.
- 6. Flows Upstream of a Highway Bottleneck. G.F. Newell.
- 7. Theory of Congested Traffic Flow: Self-Organization Without Bottlenecks. B.S. Kerner.
- 8. A Merging-Giveway Behavior Model Considering Interactions at Expressway On-Ramps. H. Kita and K. Fukuyama.
- 9. **Comparison of Results of Methods of the Identification of High-Risk Road Section.** M. Tracz and M. Nowakowska.
- 10. Behavioral Adaptation and Seat-Belt Use: A Hypothesis Invoking Looming as a Negative Reinforcer. A.H. Reinhardt-Rutland.
- 11. **Bi-Directional Emergent Fundamental Pedestrian Flows from Cellular Automata Microsimulation.** V.J. Blue and J.J. Adler.
- 12. Flow Model and Performability of a Road Network Under Degraded Conditions. Y. Asakura, M. Kashiwadani and E. Hato.
- 13. A Sensitivity Based Approach to Network Reliability Assessment. M.G.H. Bell, C. Cassir, Y. Iida and W.H.K. Lam.
- 14. A Capacity Increasing Paradox for a Dynamic Traffic Assignment with Departure Time Choice. T. Akamatsu and M. Kuwahara.
- 15. A Dynamic Traffic Assignment Formulation that Encapsulates the Cell-Transmission Model. H.K. Lo.
- 16. **Formulations of Extended Logit Stochastic User Equilibrium Assignments.** S. Bekhor and J.N. Prashker.
- 17. **A Doubly Dynamic Traffic Assignment Model for Planning Applications.** V. Astarita, V. Adamo, G.E. Cantarella and E. Cascetta.
- 18. Route Flow Entropy Maximization in Origin-Based Traffic Assignment. H. Bar-Gera and D. Boyce.
- 19. **The Use of Neural Networks for Short-Term Prediction of Traffic Demand.** J. Barcelo and J. Casas.
- 20. Algorithms for the Solution of the Congested Trip Matrix Estimation Problem. M. Maher and X. Zhang.
- 21. Combining Predictive Schemes in Short-Term Traffic Forecasting. N.E. El Faouzi.
- 22. A Theoretical Basis for Implementation of a Quantitative Decision Support System Using Bi-Level Optimization. A. Clune, M. Smith and Y. Xiang.
- 23. Macroscopic Modeling of Traffic Flow by an Approach of Moving Segments. M. Cremer, D. Staecker and P. Unbehaun.
- 24. **Microscopic Online Simulation of Urban Traffic.** J. Esser, L. Neubert, J. Wahle and M. Schreckenberg.
- 25. Modeling the Spill-Back of Congestion in Link Based Dynamic Network Loading Models: A Simulation Model With Application. V. Adamo, V. Astarita, M. Florian, M. Mahut and J.H. Wu.
- 26. **Investigation of Route Guidance Generation Issues by Simulation with DynaMIT.** J. Bottom, M. Ben-Akiva, M. Bierlaire, I. Chabini, H. Koutsopoulous and Q. Yang.
- 27. A New Feed-Back Process By Means of Dynamic Reference Values in Rerouting Control. A. Poschinger, M. Cremer and H. Keller.
- 28. **Optimal Coordinated and Integrated Motorway Network Traffic Control.** M. Papageorgiou and A. Messmer.
- 29. **Progression Optimization in Large Scale Urban Networks: A Heuristic Decomposition Approach.** C. Stammatiadis and N.H. Gartner.
- 30. Tolling at a Frontier: A Game Theoretic Analysis. D.M. Levinson.
- 31. Carpooling and Pricing in a Multilane Highway with High-Occupancy-Vehicle Lanes and Bottleneck Congestion. H.J. Huang and H. Yang.

- 32. Balance of Demand and Supply of Parking Spaces. W.H.K. Lam, M.L. Tam, H. Yang and S.C. Wong.
- 33. The Role of Lifestyle and Attitudinal Characteristics in Residential Neighborhood Choice. M.N. Bagley and P.I. Mokhtarian.
- 34. Planning of Subway Transit Systems. S.C. Wirasinghe and U. Vandebona.
- 35. Scheduling Rail Track Maintenance to Minimize Overall Delays. A. Higgins, L. Ferreira and M. Lake.

#### 15th Meeting, 16-18 July 2002. Adelaide, Australia. Edited by Michael A.P. Taylor.

- 1. A Step Function for Improving Transit Operations Planning Using Fixed and Variable Scheduling. A. Ceder.
- 2. A Sensitivity-Based Solution Algorithm for the Network Model of Urban Taxi Services. K.I. Wong, S.C. Wong , H. Yang and C.O. Tong.
- 3. **Transit Network Reliability: An Application of Absorbing Markov Chains.** M.G.H. Bell, J.D. Schmoecker, Y. Iida and W.H.K. Lam.
- 4. **Minimizing the Conflict Between Rail Operations and Infrastructure Maintenance.** M. Lake and L.J. Ferreira.
- 5. **Optimal Terminus Location for a Rail Line with Many-to-Many Travel Demand.** S.C. Wirasinghe, G.J. Quain, U. Vandebona and J.M.S.J. Bandara.
- 6. **Queue Discharge Flow and Speed Models for Signalized Intersections.** R. Akcelik and M. Besley.
- 7. The Oversaturated Isolated Intersection. G.F. Newell.
- 8. Development and Implementation of an Adaptive Control Strategy in a Traffic Signal Network: the Virtual-Fixed-Cycle Approach. N.H. Gartner.
- 9. Unsignalized Intersections: A Third Method for Analysis. W. Brilon and N. Wu.
- 10. **Supply Chain Networks with Multicriteria Decision Makers.** J. Dong, D. Zhang and A. Nagurney.
- 11. Computerized Decision Support System for the Operational Management of Transportation of Sugar Cane. R. Raicu and M.A.P. Taylor.
- 12. Normative Pedestrian Behavior Theory and Modeling. S. Hoogendorn and P.H.L. Bovy.
- 13. Towards a Unified Approach to Causal Analysis in Traffic Safety Using Structural Causal Models. G. Davis.
- 14. Identifying Similarities and Dissimilarities Among road Accident Patterns. M. Nowakowska.
- 15. A Model to Estimate the Environmental Impact of Road Transport. A. Alessandrini an M. Lemessi.
- 16. Modeling Risk Taking Behavior in Queuing Networks with ARIS. Y. Yin, W.H.K. Lam and H. Ieda.
- 17. Modeling Dynamic Vehicle Routing and Scheduling with Real-Time Information on Travel Times. E. Taniguchi, T. Yamada and M. Tameishi.
- 18. Dynamic Equilibrium Network Design. B. Heydecker.
- 19. Algorithms for Solving the Probit Path-Based Stochastic User Equilibrium Traffic Assignment Problem with One or More User Classes. A. Rosa and M. Maher.
- 20. A Traffic Flow Model for Urban Traffic Analyses: Extensions of the LWR Model for Urban and Environmental Applications. F. Giorgi, L. Leclercq and J.B. Lesort.
- 21. Theory of Congested Highway Traffic: Empirical Features and Methods of Tracing and Prediction. B. Kerner.
- 22. **Moving Bottlenecks: A Theory Grounded on Experimental Observation.** J.C. Muñoz and C.F. Daganzo.

- 23. The Performance of Uncontrolled Merges Using a Limited Priority Process. R.J. Troutbeck.
- 24. **Modeling of Freeway Ramp Merging Process Observed During Traffic Congestion.** M. Sarvi, A. Ceder and A. Kuwahara.
- 25. A Game Theoretic Analysis of Merging-Giveway Interaction: A Joint Estimation Model. H. Kita, K. Tanimoto and K. Fukuyama.
- 26. Determination of Optimal Toll Level and Toll Locations of Alternative Congestion Pricing Schemes. H. Yan, X. Zhang and H.J. Huang.
- 27. Trip Travel Time Reliability in Degradable Transport Networks. H.K. Lo.
- 28. Optimal Road Tolls and Parking Charges for Balancing the Demand and Supply of Road Transport Facilities. W.H.K. Lam, M.L. Tam and M.G.H. Bell.
- 29. Coupling of Concurrent Macroscopic and Microscopic Traffic Flow Models Using Hybrid Stochastic and Deterministic Disaggregation. A. Poschinger, R. Kates and H. Keller.
- 30. Some Recent Development in Continuum Vehicular Traffic Theory. M. Zhang and W.H. Lin.
- 31. Short-Term Prediction of Traffic Flow Conditions in a Multilane Multiclass Network. S. Hoogendorn, P.H.L. Bovy and H. Van Lint.
- 32. Freeway Traffic Oscillations: Observations and Predictions. M. Mauch and M.J. Cassidy.
- 33. Mathematical Analysis of Non-Stationary Queues and Waiting Times in Traffic Flow with Particular Consideration of the Coordinate Transformation Technique. D. Heidemann.
- 34. A Two-Phase Extension of the LWR Model Based on the Boundness of Traffic Acceleration. J.P. Lebacque.

#### 16th Meeting, 19-21 July 2005. College Park, MD, USA. Edited by Hani S. Mahmassani.

- 1. Bilevel Optimization of Prices in a Variety of Transportation Models. M.J. Smith.
- 2. A Sequential Experimental Approach for Analysis Second-Best Road Pricing With Unknown Demand Functions. H. Yang, W. Xu and Q. Meng.
- 3. Highway Space Inventory Control System. D. Teodorović and P. Edara.
- 4. **Path Size and Overlap in Multi-Modal Transport Networks.** S. Hoogendoorn-Lanser, R. van Nes and P.H.L. Bovy.
- 5. **Pedestrian Dynamics and Evacuation: Empirical Results and Design Solutions.** D. Helbing, A. Johanssen and L. Buzna.
- 6. An Empirical Assessment of Traffic Operations. C. Chen, P. Varaiya and J. Kwon.
- 7. **Reliability of Freeway Traffic Flow: A Stochastic Concept of Capacity.** W. Brilon, J. Geistefeldt and M. Regler.
- 8. A Critical Comparison of the Kinematic-Wave Model with Observational Data. K. Nagel and P. Nelson.
- 9. Average Velocity of Waves Propagating Through Congested Freeway Traffic. B. Coifman and Y. Wang.
- 10. Microscopic Three-Phase Traffic Theory and Its Applications for Freeway Traffic Control. B. Kerner.
- 11. A Behavioral Approach to Instability, Stop and Go Waves, Wide Jams and Capacity Drop. C. Tampère, S. Hoogendoorn and B. van Arem.
- 12. Controlling Traffic Breakdowns. R. Kühne and R. Mahnke.
- 13. **Parameter Estimation and Analysis of Car-Following Models.** S. Hoogendoorn and S. Ossen.
- 14. Modeling Impatience of Drivers in Passing Maneuvers. M. Pollatschek and A. Polus.
- 15. A Simulation Model for Motorway Merging Behavior. J. Wang, R. Lie and F. Montgomery.
- 16. Freeway Ramp Merging Process Observed in Congested Traffic: Lag Vehicle Acceleration Model. M. Sarvi, A. Ceder and M. Kuwahara.

- 17. A First-Order Macroscopic Traffic Flow Model for Mixed Traffic Including Moving Bottleneck Effects. S. Chanut.
- 18. A Variational Formulation of Kinematic Waves: Bottleneck Properties and Examples. C.F Daganzo and M. Menedez.
- 19. First-Order Macroscopic Traffic Flow Models: Intersection Modeling, Network Modeling. J.P. Lebacque and M. Khoshyaran.
- 20. **Real-Time Estimation of Travel Times on Signalized Networks.** A. Skabardonis and N. Geroliminis.
- 21. Calibration and Validation of Dynamic Traffic Assignment Systems. R. Balakrishna, H. Koutsopoulos and M. Ben-Akiva.
- 22. Non-Equilibrium Dynamic Traffic Assignment. W.Y. Szeto and H.K. Lo.
- 23. Precision of Predicted Travel Time, the Responses of Travelers, and Satisfaction in the Travel Experience. S. Kikuchi, S. Mangalpally and A. Gupta.
- 24. Behavioral Dynamics in Activity Participation, Travel, and Information and Communications Theory. K. Goulias and T.G. Kim.
- 25. Modeling the Joint Labor-Commute Engagement Decisions of San Francisco Bay Area Residents. D.T. Ory and P.L. Mokhtarian.
- 26. **A Model of Daily Time Use Allocation Using Fractional Logit Methodology.** X. Ye and R. Pendyala.
- 27. Efficient Estimation of Nested Logit Models Using Choice-Based Samples. L.A. Garrow, F.S. Koppelman and B.L. Nelson.
- 28. Functional Approximations to Alternative-Specific Constants in Time-Period Choice-Modeling. S. Hess, J.W. Polak and M. Bierlaire.
- 29. Project-Based Activity Scheduling for Person Agents. E.J. Miller.
- 30. Modeling Commercial Vehicle Empty Trips: Theory and Application. J. Holguin-Veras, J.C. Zorrilla and E. Thorson.
- 31. Rationality and Heterogeneity in Taxi Driver Decisions: Application of a Stochastic-Process Model of Taxi Behavior. R. Kitamura and T. Yoshii.
- 32. A Rolling-Horizon Approach to the Optimal Dispatching of Taxis. M.G.H. Bell, K.I. Wong and A.J. Nicholson.
- 33. Capacitated Arc Routing Problem with Extensions. H. Qiao and A. Haghani.
- 34. User-Equilibrium Route Set Analysis of a Large Road Network. H. Bar-Gera and D. Boyce.
- 35. Comparison of Static Maximum Likelihood Origin-Destination Formulations. H. Rakha, H. Paramahamsan and M. von Aerde.
- 36. **A Time-Dependent Activity and Travel Choice Model with Multiple Parking Options.** H.J. Huang, Z.C. Li, W.H.K. Lam and S.C. Wong.
- 37. Doubly Dynamic Equilibrium Distribution Approximation Model for Dynamic Traffic Assignment. N.C. Balijepalli and D.P. Watling.
- 38. A Combined Model of Housing Location and Traffic Equilibrium Problems in a Continuous Transportation System. H.W. Ho and S.C. Wong.

# 17th Meeting, 23-25 July 2007. London, UK. Edited by Richard E. Allsop, Michael G.H. Bell, and Benjamin G. Heydecker.

- 1. A New Concept and General Algorithm Architecture to improve Automated Incident **Detection.** K. Zhang and M.A.P. Taylor.
- 2. Understanding Traffic Breakdown: A Stochastic Approach. R. Kühne, R. Manhke and J. Hinke.
- 3. **Optimal Single Route Transit Vehicle Scheduling.** A. Ceder.
- 4. Variation of Value of Travel Time Savings over Travel Time in Urban Commuting: Theoretical and Empirical Analysis. H. Kato.

- 5. Anticipative Vehicle Control Algorithm Mitigating Temporal Information Delay. Y. Liu and F. Dion.
- 6. **Reserve Capacity of a Signal-Controlled Network Considering the Effect of Physical Queuing.** C.K. Wong, S.C. Wong and H.K. Lo.
- 7. Time Dependent Delay at Unsignalised Intersections. W. Brilon.
- 8. **A Generalization of the Risk-Averse Traffic Assignment.** W.Y. Szeto, L. Obrien and M. O'Mahony.
- 9. **Dynamic Ramp Metering Strategies for Risk-Averse System Optimal Assignment.** T. Akamatsu and T. Nagae.
- 10. Theoretical Bounds Of Congestion-Pricing Efficiency For A Continuum Transportation System. H.W. Ho and S.C. Wong.
- 11. Empirical Studies on Road Traffic Response to Capacity Reduction. R. Clegg.
- 12. Uniqueness of Equilibrium in Continuous Models for Dynamic Traffic Networks. R. Mounce and M. Smith.
- 13. Developing a Positive Approach to Travel Demand Analysis. L. Zhang.
- 14. **On-line Ambulance Dispatching Heuristics with the Consideration of Triage.** K.I. Wong, F. Kurauchi and M.G.H. Bell.
- 15. **Properties of a Microscopic Heterogeneous Multi-anticipative Traffic Flow Model.** S. Hoogendoorn, S. Ossen and M. Schreuder.
- 16. A Game Theoretical Approach for Modeling Merging and Yielding Behavior at Freeway On-Ramp Section. H. Liu, W. Xin, Z.M. Adam and J.X. Ban.
- 17. A General Modeling Framework for Travelers Day-to-Day Route Adjustment Processes. F. Yan and H. Lui.
- 18. A Theory on Modeling Collaboration in Logistics Networks: Combining Network Design Theory and Transaction Costs Economics. B. Groothedde and P. Bovy.
- 19. **Random Supply and Strategic Behaviour in Static Traffic Assignment.** G. Bellei and G. Gentile.
- 20. A Markov Process Model for Capacity-constrained Frequency-based Transit Assignment. F. Teklu, D. Watling and R. Connors.
- 21. The Co-evolution of Land Use and Road Networks. D. Levinson, F. Xie and S. Zhu.
- 22. Assessing Network Vulnerability of Degradable Transportation Systems: An Accessibility Based Approach. A. Chen, S. Kongsomsaksakula, Z. Zhoua, M. Leea and W. Recker.
- 23. Analysis of Dynamic System Optimum and Externalities with Departure Time Choice. A.H.F. Chow.
- 24. Stochastic Modelling and Simulation of Multi-lane Traffic. N. Dundon and A. Sopasakis.
- 25. **The Lagrangian Coordinates and What It Means for First Order Traffic Flow Models.** L. Leclercq, J. Laval and E. Chevallier.
- 26. Generic Second Order Traffic Flow Modelling. J.P. Lebacque, S. Mammar and H. Haj-Salem.
- 27. **Bounding the Inefficiency of Toll Competition among Congested Roads.** F. Xiao, H. Yang and X. Guo.
- 28. **State Dependence in Driver Behaviour Models.** C. Choudhury, M. Ben-Akiva, T. Toledo, A. Rao and G. Lee.
- 29. A Frequency Based Transit Model for Dynamic Traffic Assignment to Multimodal Networks. L. Meschini, G. Gentile and N. Papola.
- 30. Time-Differential Pricing of Road Tolls and Parking Charges in a Transport Network with Elastic Demand. Z.C. Li, H.J. Huang, W.H.K. Lam and S.C. Wong.
- 31. Commuting Equilibria on a Mass Transit System with Capacity Constraints. Q. Tian, H.J. Huang and H. Yang.
- 32. A Novel Fuzzy Logic Controller for Transit Preemption Signal. Y.C. Chiou, M.T. Wang and L.W. Lan.

- 33. A Robust Approach to the Continuous Network Design Problem with Demand Uncertainty. Y. Yin and S. Lawphongpanich.
- 34. A Computable Theory of Dynamic Congestion Pricing. T. Friesz, C. Kwon and R. Mookherjee.
- 35. Freeway Traffic Oscillations and Vehicle Lane-Change Maneuvers. S. Ahn and M. Cassidy.
- 36. **On Path Marginal Cost and its Relation to Dynamic System-Optimal Traffic Assignment.** W. Shen, Y. Nie and H.M. Zhang.

# 18th Meeting, 16-18 June 2009. Hong Kong. Edited by William H.K. Lam, S.C. Wong, and Hong K. Lo.

- 1. A Game Theoretic Approach to the Determination of Hyperpaths in Transportation Networks. Jan-Dirk Schmöcker, Michael G.H. Bell, Fumitaka Kurauchi, Hiroshi Shimamoto.
- 2. Network Equilibrium under Cumulative Prospect Theory and Endogenous Stochastic Demand and Supply. Agachai Sumalee, Richard D. Connors, Paramet Luathep.
- 3. **Spatiotemporal Effects of Segregating Different Vehicle Classes on Separate Lanes.** Michael J. Cassidy, Carlos F. Daganzo, Kitae Jang, Koohong Chung.
- 4. **Microscopic Traffic Behaviour near Incidents.** Victor L. Knoop, Henk J. van Zuylen, Serge P. Hoogendoorn.
- 5. **Understanding Stop-and-Go Traffic in View of Asymmetric Traffic Theory.** Hwasoo Yeo, Alexander Skabardonis.
- 6. A Stochastic α-Reliable Mean-Excess Traffic Equilibrium Model with Probabilistic Travel Times and Perception Errors. Anthony Chen, Zhong Zhou.
- 7. **Equilibrium Trip Scheduling in Congested Traffic under Uncertainty.** Barbara W.Y. Siu, Hong K. Lo.
- 8. Reliable a Priori Shortest Path Problem with Limited Spatial and Temporal Dependencies. Yu (Marco) Nie, Xing Wu.
- 9. **Risk Averse Second Best Toll Pricing.** Xuegang (Jeff) Ban, Shu Lu, Michael Ferris, Henry X. Li.
- 10. **Cordon Pricing Consistent with the Physics of Overcrowding.** Nikolas Geroliminis, David M. Levinson.
- 11. Build-operate-transfer Schemes for Road Franchising with Road Deterioration and Maintenance Effects. Zhijia Tan, Hai Yang, Xiaolei Gu.
- 12. Equilibria and Inefficiency in Traffic Networks with Stochastic Capacity and Information Provision. Tian-Liang Liu, Hai-Jun Huang, Hai Yang, Xiaolei Gu.
- 13. An Active-set Algorithm for Discrete Network Design Problems. Lihui Zhang, Siriphong Lawphongpanich, Yafeng Yi.
- 14. Multi-class Multi-modal Network Equilibrium with Regular Choice Behaviors: a General Fixed Point Approach. Meng Xu, Ziyou Gao.
- 15. Existence of Equilibrium in a Continuous Dynamic Queueing Model for Traffic Networks with Responsive Signal Control. Richard Mounce.
- 16. **Harmonic Analysis and Optimization of Traffic Signal Systems.** Nathan H. Gartner, Rahul Deshpande.
- 17. A Two-direction Method of Solving Variable Demand Equilibrium Models with and without Signal Control. Mike Smith.
- 18. **Modeling Learning Impacts on Day-to-Day Travel Choice.** Ozlem Yanmaz-Tuzel, Kaan Ozbay.
- 19. A Probit-based Joint Discrete-continuous Model System: Analyzing the Relationship between Timing and Duration of Maintenance Activities. Xin Ye, Ram M. Pendyala.

- 20. Bayesian Learning, Day-to-Day Adjustment Process, and Stability of Wardrop Equilibrium. Shoichiro Nakayama.
- 21. Hotspot Identification: A Full Bayesian Hierarchical Modeling Approach. H.L. Huang, H.C. Chin, M.M. Haque.
- 22. The Continuous Risk Profile Approach for the Identification of High Collision Concentration Locations on Congested Highways. Koohong Chung, David R. Ragland, Samer Madanat, Soon Mi Oh.
- 23. Estimation of Parameters of Network Equilibrium Models: A Maximum Likelihood Method and Statistical Properties of Network Flow. Shoichiro Nakayama, Richard D. Connors, David Watling.
- 24. **Optimization of a Bus and Rail Transit System with Feeder Bus Services under Different Market Regimes.** Chi-Chun Li, William H.K. Lam, S.C. Wong.
- 25. **Modelling Dynamic Generation of a Choice Set in Pedestrian Networks.** Takamasa Iryo, Yasuo Asakura, Ryota Onishi, Chiharu Samma.
- 26. A Common Modeling Framework for Dynamic Traffic Assignment and Supply Chain Management Systems with Congestion Phenomena. Georgios Kalafatas, Srinivas Peeta.
- 27. A Pedestrian Model Considering Anticipatory Behaviour for Capacity Evaluation. Miho Asano, Takamasa Iryo, Masao Kuwahara.
- 28. A Comparative Assessment of Stochastic Capacity Estimation Methods. Justin Geistefeldt, Werner Brilon.
- 29. Supply-demand Diagrams and a New Framework for Analyzing the Inhomogeneous Lighthill-Whitham-Richards Model. W.L. Jin, L. Chen, Elbridge Gerry Puckett.
- 30. Network Evaluation Based on Connectivity Vulnerability. Fumitaka Kurauchi, Nobuhiro Uno, Agachai Sumalee, Yumiko Seto.
- 31. Reliability-based Dynamic Discrete Network Design with Stochastic Networks. Hao Li, Michael C.J. Bliemer, Piet H.L. Bovy.
- 32. Flow Breakdown, Travel Reliability and Real-time Information in Route Choice Behavior. Jing Dong, Hani S. Mahmassani.
- 33. **Optimal Sensor Placement for Freeway Travel Time Estimation.** Xuegang (Jeff) Ban, Ryan Herring, J.D. Margulici, Alexandre M. Bayen.
- 34. Updating Dynamic Origin-destination Matrices using Observed Link Travel Speed by Probe Vehicles. Toshiyuki Yamamoto, Tomio Miwa, Tomonori Takeshita, Takayuki Morikawa.

#### 19th Meeting, 18-20 July 2011. Berkeley, CA, USA. Edited by M. Cassidy and A. Skabardonis.

- 1. **Capacity Drops at Merges: an endogenous model.** Ludovic Leclercq, Jorge A. Laval, Nicolas Chiabaut.
- 2. **Mitigating Freeway Off-Ramp Congestion: a surface streets coordinated approach.** Germán E. Günther, Juan E. Coeymans, Juan C. Muñoz, Juan C. Herrera.
- 3. **Extended Bottlenecks, the Fundamental Relationship, and Capacity Drop on Freeways.** Benjamin Coifman, Seoungbum Kim.
- 4. **Optimal inter-area coordination of train rescheduling decisions.** F. Corman, A. D'Ariano, D. Pacciarelli, M. Pranzo.
- 5. **Design of a rail transit line for profit maximization in a linear transportation corridor.** Zhi-Chun Li, William H.K. Lam, S.C. Wong, A. Sumalee.
- 6. Design and Implementation of Efficient Transit Networks: Procedure, Case Study and Validity Test. M. Estrada, M. Roca-Riu, H. Badia, F. Robusté, C.F. Daganzo.
- 7. Cognitive Cost in Route Choice with Real-Time Information: An Exploratory Analysis. Song Gao, Emma Frejinger, Moshe Ben-Akiva.

- 8. Estimating time of day demand with errors in reported preferred times: An application to airline travel. Raúl Brey, Joan L. Walker.
- 9. **Dynamics of information generation and transmissions through a social network in non**recurrent transport behaviour. Takamasa Iryo, Kazuma Yamabe, Yasuo Asakura.
- 10. A maximum entropy-least squares estimator for elastic origin-destination trip matrix estimation. Chi Xie, Kara M. Kockelman, S. Travis Waller.
- 11. Hysteresis Phenomena of a Macroscopic Fundamental Diagram in Freeway Networks. Nikolas Geroliminis, Jie Sun.
- 12. On the Fundamental Diagram and Supply Curves for Congested Urban Networks. Ronghui Liu, Tony May, Simon Shepherd.
- 13. Implementing Kinematic Wave Theory to Reconstruct Vehicle Trajectories from Fixed and Probe Sensor Data. Babak Mehran, Masao Kuwahara, Farhana Naznin.
- 14. On the existence of pricing strategies in the discrete time heterogeneous single bottleneck model. Kien Doan, Satish Ukkusuri, Lanshan Han.
- 15. Nonlinear Pricing on Transportation Networks. Siriphong Lawphongpanich, Yafeng Yin.
- 16. A splitting rate model of traffic re-routeing and traffic control. Mike Smith, Richard Mounce.
- 17. A Tractable Class of Algorithms for Reliable Routing in Stochastic Networks. S. Samaranayake, S. Blandin, A. Bayen.
- 18. **Dynamic network loading: a stochastic differentiable model that derives link state distributions.** Carolina Osorio, Gunnar Flötteröd, Michel Bierlaire.
- 19. Modeling Heterogeneous Risk-Taking Behavior in Route Choice: A Stochastic Dominance Approach. Xing Wu, Yu (Marco) Nie.
- 20. Managing Evacuation Networks. Carlos F. Daganzo, Stella K. So.
- 21. **Models for Relief Routing: Equity, Efficiency and Efficacy.** Michael Huang, Karen Smilowitz, Burcu Balcik.
- 22. Animal dynamics based approach for modeling pedestrian crowd egress under panic conditions. Nirajan Shiwakoti, Majid Sarvi, Geoff Rose, Martin Burd.
- 23. **PAMSCOD: Platoon-based Arterial Multi-modal Signal Control with Online Data.** Qing He, K. Larry Head, Jun Ding.
- 24. Development and evaluation of a constrained optimization model for traffic signal plan transition. Jisun Lee, Billy M. Williams.
- 25. Efficiency and Equity of Ramp Control and Capacity Allocation Mechanisms in a Freeway Corridor. Qiong Tian, Hai-Jun Huang, Hai Yang, Ziyou Gao.
- 26. **Dynamic Ride-Sharing: a Simulation Study in Metro Atlanta.** Niels Agatz, Alan L. Erera, Martin W.P. Savelsbergh, Xing Wang.
- 27. Optimal route decision with a geometric ground-airborne hybrid model under weather uncertainty. Yoonjin Yoon, Mark Hansen, Michael O. Ball.
- 28. **Coordinated aviation network resource allocation under uncertainty.** Andrew M. Churchill, David J. Lovell.
- 29. Platoon-Based Traffic Flow Model for Estimating Breakdown Probability at Single-Lane Expressway Bottlenecks. Yasuhiro Shiomi, Toshio Yoshii, Ryuichi Kitamura.
- 30. A porous flow approach to modeling heterogeneous traffic in disordered systems. Rahul Nair, Hani S. Mahmassani, Elise Miller-Hooks.
- 31. **The economics of parking provision for the morning commute.** Zhen (Sean) Qian, Feng (Evan) Xiao, H.M. Zhang.
- 32. **Proactive detection of high collision concentration locations on highways.** Koohong Chung, Kitae Jang, Samer Madanat, Simon Washington.
- 33. Optimality of environmental policies in air transport markets and changes in the schedule delay: a theoretical approach. M. Pilar Socorro, Ofelia Betancor.

- 34. Characterization of Traffic Oscillation Propagation under Nonlinear Car-Following Laws. Xiaopeng Li, Yanfeng Ouyang.
- 35. Evidence of Convective Instability in Congested Traffic Flow: A Systematic Empirical and Theoretical Investigation. Martin Treiber, Arne Kesting.
- 36. Freeway Traffic Oscillations: Microscopic Analysis of Formations and Propagations using Wavelet Transform. Zuduo Zheng, Soyoung Ahn, Danjue Chen, Jorge Laval.

## 20th Meeting, 17-19 July 2013. Noordwijk, the Netherlands. Edited by S.P. Hoogendoorn, V.L. Knoop and H. van Lint

- 1. On Joint Railway and Housing Development Strategy. Xiaosu Ma, Hong Lo.
- 2. A Supporting Station Model for Reliable Infrastructure Location Design under Interdependent Disruptions. Xiaopeng Li, Yanfeng Ouyang, Fan Peng.
- 3. Computational precision of traffic equilibria sensitivities in automatic network design and road pricing. Michael Patriksson, Hillel Bar-Gara, Fredrik Hellman.
- 4. **Day-to-Day Price and Flow Dynamics of Tradable Mobility Credits.** Hongbo Ye, Hai Yang.
- 5. Urban Network Gridlock: Characteristics, Dynamics and Control. Hani Mahmassani, Meead Saberi, Ali Zockaie K.
- 6. **Estimating MFDs in Simple Networks with Route Choice.** Ludovic Leclercq, Nikolas Geroliminis.
- 7. **On the distribution of urban road space for multimodal congested networks.** Nan Zheng, Nikolas Geroliminis.
- 8. On the Estimation of Temporal Mileage Rates. Richard Wilson.
- 9. On Activity-Based Network Design Problems. Jee Eun Kang, Joseph Chow, Will Recker.
- 10. **Continuous Approximation for Skip-Stop Operation in Rail Transit.** Maxime Freyss, Ricardo Giesen, Juan Carlos Munoz.
- 11. Generation and Calibration of Transit Hyperpaths. Jan Dirk Schmoecker, Hiroshi Shimamoto, Fumitaka Kurauchi.
- 12. Boundedly Rational User Equilibria (BRUE): mathematical formulation and solution sets. Xuan Di, Henry X. Liu, Jong-Shi Pang, Jeff X. Ban.
- 13. The evening commute with cars and transit: Duality results and user equilibrium for the combined morning and evening peaks. Eric Gonzales, Carlos Daganzo.
- 14. **Modelling route choice behaviour in a tolled road network with a time surplus maximisation bi-objective user equilibrium model.** Judith Y.T. Wang, Matthias Ehrgott.
- 15. **Differentiated Congestion Pricing of Urban Transportation Networks with Vehicle-Tracking Technologies.** Mahmood Zangui, Yafeng Yin, Siriphong, Lawphongpanich, Shigang Chen.
- 16. A hybrid implementation mechanism of tradable network permits system which obviates path enumeration: an auction mechanism with day-to-day capacity control. Kentaro Wada, Takashi Akamatsu.
- 17. The variational formulation of a non-equilibrium traffic flow model: theory and implications. Jia Li, Michael Zhang.
- Longitudinal Driving Behavior in case of Emergency Situations: An Empirically Underpinned Theoretical Framework. Raymond Hoogendoorn, Bart van Arem, Karel Brookhuis.
- 19. A variational formulation for higher order macroscopic traffic flow models of the GSOM family. Jean-Patrick Lebacque, Megan Khoshyaran.
- 20. Sensitivity-based uncertainty analysis of a combined travel demand model. Chao Yang, Chen Anthony, Xiangdong Xu, S.C. Wong.

- 21. A transportation programming model considering project interdependency and regional balance. Kuancheng Huang, Yi-Ming Kuo.
- 22. Dynamic User Equilibrium in Public Transport Networks with Passenger Congestion and Hyperpaths. Valentina Trozzi, Guido Gentile, Michael Bell, Ioannis Kaparias.
- 23. Rationing and Pricing Strategies for Congestion Mitigation: Behavioral Theory, Econometric Model, and Application in Beijing. Shanjiang Zhu, Longyuan Du, Lei Zhang.
- 24. Vehicle Index Estimation for Signalized Intersections Using Sample Travel Times. Peng Hao, Dong Guo, Xuegang Ban, Qiang Ji, Zhanbo Sun.
- 25. **Modelling supported driving as an optimal control cycle: Framework and model characteristics.** Meng Wang, Martin Treiber, Winnie Daamen, Serge P. Hoogendoorn, Bart van Arem.
- 26. Linear-Quadratic Model Predictive Control for Urban Traffic Networks. Tung Le, Hai L. Vu, Yoni Nazarathy, Bao Vo, Serge P. Hoogendoorn.
- 27. Rolling Horizon Approach for Aircraft Scheduling in the Terminal Control Area of Busy Airports. Marcella Sama, Andrea D'Ariano, Dario Pacciarelli.
- 28. Bicriterion Shortest Path Problem with a General Nonadditive Cost. Peng Chen, Yu Nie.
- 29. A bidding advisory model for combinatorial auctions in freight transportation markets with less-than-truckload (LTL) schemes. Rodrigo Mega-Arango, Satish Ukkusuri.
- 30. A Bayesian approach to traffic estimation in stochastic user equilibrium networks. Chong Wei, Yasuo Asakura.
- 31. **A path-size weibit stochastic user equilibrium model.** Songyot Kitthamkesorn, Chen Anthony.
- 32. Adaptive vehicle routing for risk-averse travellers. Lin Xiao, Hong Lo.
- 33. A multi-commodity Lighthill-Whitham-Richards model of lane-changing traffic flow. Wen-Long Jin.
- 34. Key variables of merging behavior: empirical comparison between two sites and assessment of gap acceptance theory. Florian Marczak, Winnie Daamen, Christine Buisson.
- 35. Freeway On-Ramp Bottleneck Activation, Capacity, and the Fundamental Relationship. Seoungbum Kim, Benjamin Coifman.