

## **A1C02 Committee/Subcommittee Meetings at TRB 2003**

### **A1C02**

Chandra R. Bhat, presiding; Monday, 7:30 p.m.-9:30 p.m., Hilton  
Committee on Passenger Travel Demand Forecasting

### **A1C02(1)**

Karthik Srinivasan and Joan Walker, presiding; Tuesday, 1:30 p.m.-3:15 p.m., Hilton  
Subcommittee on Emerging Methods and Developments in Urban Activity and Travel Analysis

### **A1C02(2)**

Eric J. Miller, presiding; Tuesday, 7:30 p.m.-9:30 p.m., Hilton  
Subcommittee on Integrated Transportation and Land Use Modeling

---

## **Sessions Sponsored by A1C02 Committee**

### **Workshop 132**

**Sunday, January 12, 2003, 1:00 PM - 5:00 PM, Hilton**  
**Doctoral Student Research in Transportation Modeling**

Ali Haghani, University of Maryland, presiding  
David J. Lovell, University of Maryland, presiding

*Sponsored by:*

*A1C05 - Committee on Transportation Network Modeling*  
*A3A11 - Committee on Traffic Flow Theory and Characteristics*  
*A1C02 - Committee on Passenger Travel Demand Forecasting*  
*A1C04 - Committee on Traveler Behavior and Values*

### **Session 227**

**Monday, January 13, 2003, 8:00 AM - 9:45 AM, Hilton**

**Activity-Based Travel Modeling: Medley of Important Directions**

T. Keith Lawton, Metro Planning Department, Portland, Oregon, presiding

*Sponsored by: A1C02 Committee on Passenger Travel Demand Forecasting*

**Continuous Time Representation and Modeling Framework for Analysis of Nonworker**

**Activity-Travel Patterns: Tour and Episode Attributes (03-3306)**

Rajul Misra, United Technologies Research Center; Chandra R. Bhat and Siva Srinivasan,  
University of Texas, Austin

**Explicit Modeling of Joint Travel by Household Members: Statistical Evidence and  
Applied Approach (03-3771)**

Peter S. Vovsha, Eric Petersen, Robert M. Donnelly, PB Consult

**Prototype Model of Household Activity and Travel Scheduling (03-3272)**

Eric J. Miller and Matthew John Roorda, University of Toronto, Canada

**Mixed Multinomial Logit Model Analysis of Weekend Recreational Episode Type Choice (03-3305)**

Chandra R. Bhat and Rachel Gossen, University of Texas, Austin

**Empirical Analysis of Commute Stop-Making Behavior (03-3981)**

You-Lian Chu, Parsons

**Session 238**

**Monday, January 13, 2003, 9:00 AM - 12:00 PM, Hilton**

**Land Use and Transportation Innovations (Poster Session)**

*Sponsored by: AID02 Committee on Transportation and Land Development and AIC02 Committee on Passenger Travel Demand Forecasting*

**Accessibility and Agglomeration: Discrete-Choice Models of Employment Location by Industry Sector (03-2971)**

Paul Waddell and Gudmundur Freyr Ulfarsson, University of Washington

**Multworker Household Commuting and Location Choice Behavior (03-3554)**

Falan Guan, Los Angeles County Metropolitan Transportation Authority

**Tracking Land Use, Transport, and Industrial Production Using Random-Utility-Based Multizonal Input-Output Models: Applications for Texas Trade (03-3795)**

Ling Jin, Kara M. Kockelman, and Yong Zhao, University of Texas, Austin

**Random-Utility-Based Multiregional Input-Output Model: Solution Existence and Uniqueness (03-3815)**

Yong Zhao and Kara M. Kockelman, University of Texas, Austin

**Reintroduction of Albatross' Decision Rules Using Pooled Activity-Travel Diary Data and Extended Set of Land Use and Cost-Related Condition States (03-2141)**

Theo Arentze, Eindhoven University of Technology, Netherlands; Frank Hofman, Ministry of Transport, Public Works, and Water Management, Netherlands; Harry Timmermans, Eindhoven University of Technology, Netherlands

**Influence of Green Space Amenities in the Residential Environment on Travel Behavior (03-2417)**

Kees Maat and Paul de Vries, Delft University of Technology, Netherlands

**Session 265**

**Monday, January 13, 2003, 10:15 AM - 12:00 PM, Hilton**

**Discrete Choice and Spatial Modeling Methods**

Joan Walker, Caliper Corporation, presiding

*Sponsored by: AIC02 Committee on Passenger Travel Demand Forecasting*

**Effects of Less-Equilibrating Data on Travel Choice Model Estimation (03-4358)**

Jun-Seok Oh, Cristian E. Cortes, Wilfred W. Recker, University of California, Irvine

**Modeling Departure Time Choice in the Context of Activity Scheduling Behavior (03-2425)**

Dick Ettema, Harry Timmermans, Eindhoven University of Technology, Netherlands

**Mixed Spatially Correlated Logit Model: Formulation and Application to Residential Choice Modeling (03-3299)**

Chandra R. Bhat and Jessica Y. Guo, University of Texas, Austin

**Simulating Spatial Choices with Quasi-Continuous Representation of Urban Space: Application of MCMC Algorithms (03-3635)**

Akira Kikuchi and Ryuichi Kitamura, Kyoto University, Japan; Toshiyuki Yamamoto, Nagoya University, Japan; Satoshi Fujii, Tokyo Institute of Technology, Japan

**Variation of Activity Patterns with Features of Spatial Context (03-2419)**

Kees Maat, Delft University of Technology, Netherlands; Theo Arentze, Eindhoven University of Technology, Netherlands

**Session 262**

**Monday, January 13, 2003, 10:15 AM - 12:00 PM, Hilton**

**Travel Demand Forecasting in Developing Countries**

Roger Gorham, Environmental Protection Agency, presiding  
Christopher Zegras, Massachusetts Institute of Technology, presiding

*Sponsored by:*

*A5005 - Committee on International Activities*

*A1C04 - Committee on Traveler Behavior and Values*

*A1C02 - Committee on Passenger Travel Demand Forecasting*

*A5013 - Committee on Nonmotorized Transport and Related Issues in Developing Countries*

**Panel Discussion (P03-6885)**

George Tharakan, World Bank  
Eric J. Miller, University of Toronto, Canada  
Roger Allport, Halcrow Fox  
Eric P. Ho, Gallop Corporation  
Manfred Breithaupt, GTZ, Germany  
Kay Werner Axhausen, ETH Zurich, Switzerland

**Session 311**

**Monday, January 13, 2003, 2:30 PM - 5:30 PM, Hilton**

**Transportation Planning in Developing Countries (Poster Session)**

*Sponsored by: A1C02 Committee on Passenger Travel Demand Forecasting, A1C04 Committee on Traveler Behavior and Values, A5005 Committee on International Activities*

**GIS Model for Assessing Vehicle Operating Costs on Mexican Federal Roads (03-2722)**

Alberto Mendoza and Juan Ramon Leyva, Mexican Institute of Transportation

**Innovative Methodology for Vehicular Demand Forecasting in Developing Countries**

**(03-2746)**

Khaled Hamad and Ardeshir Faghri, University of Delaware

**Availability of Travel Forecasting Methods and Data for Air Quality Planning in Developing Countries (03-2879)**

Noreen C. McDonald and Christopher D. Porter, Cambridge Systematics, Inc.; Roger Gorham, Environmental Protection Agency

**Derivation of Emission Factors for Nanjing, China, Using MOBILE5 (03-2913)**

Xiugang Li and Lei Yu, Texas Southern University; Wei Wang, Southeast University, People's Republic of China

**Coordinated Transportation and Land Use Planning in the Developing World: Case of Mexico City (03-2957)**

Michael Gilat and Joseph M. Sussman, Massachusetts Institute of Technology

**Combined RP/SP Nested Logit Model of Vehicle Ownership, Mode Choice, and Trip Chaining to Investigate Household Travel Behavior in Developing Countries (03-4280)**

Dilum Deepika Dissanayake, Nagoya University, Japan

**Sustainable Transport for Developing Cities: Solutions and Approaches Being Developed (03-4498)**

Manfred Breithaupt, GTZ, Germany; Karl Patrick Fjellstrom, GTZ, Australia

**Session 440**

**Tuesday, January 14, 2003, 9:00 AM - 12:00 PM, Hilton**

**Advances in Travel Demand Forecasting (Poster Session)**

*Sponsored by: AIC02 Committee on Passenger Travel Demand Forecasting, AIC04 Committee on Traveler Behavior and Values*

**Comparative Analysis of Time-Space Prism Vertices for Out-of-Home Activity Engagement on Working and Nonworking Days (03-2234)**

Toshiyuki Yamamoto and Ryuichi Kitamura, Nagoya University, Japan; Ram M. Pendyala, University of South Florida

**Design Method for Integrated Regional Transport System (03-3777)**

Isabel Renate Wilmink and Bart Egeer, TNO Inro, Netherlands

**Supernetwork Approach Toward Multimodal Route Choice Modeling (03-3951)**

Charles Lindveld and Stella Catalano, Delft University of Technology, Netherlands; Kristof Carlier, TNO Inro, Netherlands; Piet H. L. Bovy, Delft University of Technology, Netherlands

**Household Car Travel in the United Kingdom: Pseudo-Panel Analysis (03-3349)**

Joyce Mary Dargay, University College London, United Kingdom

## Session 441

Tuesday, January 14, 2003, 9:00 AM - 12:00 PM, Hilton

### **New Conceptual and Empirical Models of Travel Behavior (Poster Session)**

*Sponsored by: AIC04 Committee on Traveler Behavior and Values, AIC02 Committee on Passenger Travel Demand Forecasting*

#### **Benefit and Spatial Transferability of Lifestyle Models for Home-Based Work Trips !X Case Studies of Three Florida Urban Areas (03-4265)**

Min-Tang Li, Fang Zhao, Lee-Fang Chow, and Albert C. Gan, Florida International University; Imran Ghani, Florida Department of Transportation

#### **Analysis of Elderly Mobility Using Structural Equation Modeling (03-3970)**

Sungyop Kim, University of Washington

#### **Agent-Based Activity Microsimulation Kernel Using a Negotiation Metaphor (03-4087)**

Craig Ross Rindt and James Edward Marca, University of California, Irvine

#### **Use of Structural Equation Modeling for Attitudinal Market Segmentation Approach to Mode Choice and Ridership Forecasting (03-4481)**

Maren L. Outwater, Cambridge Systematics, Inc.; Steve Castleberry, San Francisco Bay Area Water Transit Authority; Yoram Shiftan, Technion-Israel Institute of Technology; Moshe Ben-Akiva, Massachusetts Institute of Technology; Yu Shuang Zhou and Arun Kuppam, Cambridge Systematics, Inc.

#### **Application of Artificial Neural Network Models to Activity Scheduling Time Horizon (03-4443)**

Sean T. Doherty, Wilfrid Laurier University, Canada; Abolfazl Mohammadian, California State University

#### **Work Travel Mode Choice Modeling Using Data Mining: Decision Trees and Neural Networks (03-4338)**

Chi Xie and Jinyang Lu, University of Massachusetts, Amherst; Emily Parkany, Villanova University

#### **Empirical Investigation of Underlying Behavioral Processes of Trip Chaining (03-3358)**

Ming S. Lee, TJKM Transportation Consultants; Jin-Hyuk Chung, Chung Ang University, Korea

#### **Mapping the Terrain of Information and Communications Technology and Household Travel (03-4455)**

Kevin J. Krizek, University of Minnesota

#### **Truly Agent-Based Strategy Selection for Transportation Simulations (03-4258)**

Bryan Keith Raney and Kai Nagel, ETH Zurich, Switzerland

#### **Long-Term Travel Demand Forecasting in General Dynamic Transportation Networks (03-2235)**

Theodore Tsekeris and Anthony Stathopoulos, National Technical University of Athens, Greece

**Modeling Uncertainty in Parking Choice Behavior (03-3776)**

Mauro Dell'Orco, Michele Ottomanelli, and Domenico Sassanelli, Polytechnic University of Bari, Italy

**Formulation and Solution Algorithm for a Fuzzy Dynamic Traffic Assignment Model (03-3472)**

Henry X. Liu, University of California, Berkeley; Xuegang Ban and Bin Ran, University of Wisconsin, Madison; Pitu Mirchandani, University of Arizona

**Fuzzy Preference Based Route Choice Model (03-2332)**

M. Ridwan, RWTH Aachen, Germany

**Impact of Tilting Trains in Switzerland: Route Choice Model of Regional and Long Distance Public Transport Trips (03-2371)**

Milenko Vrtic and Kay Werner Axhausen, ETH Zurich, Switzerland

**Role of Spatial and Temporal Factors in VMS Effectiveness Under Nonrecurrent Congestion (03-4483)**

Karthik K. Srinivasan and Arun Krishnamurthy, Vanderbilt University

**Hybrid Model for Driver Route Choices Incorporating En Route Attributes and Real-Time Information Effects (03-2381)**

Srinivas Peeta and Jeong Whon Yu, Purdue University

**Application of Adaptive Neuro-Fuzzy Inference System to Analyze Travel Behavior (03-2566)**

Ondrej Pribyl and Konstadinos G. Goulias, Pennsylvania State University

**Activity Attribute Decision Sequencing (03-3469)**

Sean T. Doherty, Wilfrid Laurier University, Canada

**Session 442**

**Tuesday, January 14, 2003, 9:00 AM - 12:00 PM, Hilton**

**Innovations in Travel Behavior Analysis (Poster Session)**

*Sponsored by: A1C04 Committee on Traveler Behavior and Values, A1C02 Committee on Passenger Travel Demand Forecasting*

**Space-Time User Benefit and Utility Accessibility Measures for Individual Activity Schedules (03-4091)**

Olu Ashiru, John Polak, and Robert B. Noland, Imperial College of Science Technology and Medicine, United Kingdom

**Fundamental Relationships Specifying Travel Behavior: International Travel Survey Comparison (03-3809)**

German Camilo Lleras, Massachusetts Institute of Technology; Anja Simma, ARE - Bundesamt für Raumentwicklung, Switzerland; Denis Bolduc, University of Laval, Canada; Andreas W. Schafer, Massachusetts Institute of Technology; Kay Werner Axhausen, ETH Zurich, Switzerland; Tomoyuki Furutani, University of Tokyo, Japan

**Recreational Travel Behavior from Information-Processing Perspective (03-3634)**

Rebecca van der Horst, Utrecht University, Netherlands

**Measuring Stated Bifurcation Points in Traveler Adaptation Processes: Example of Long Distance Transport Mode Choice (03-3016)**

Donggen Wang and Jiukun Li, Hong Kong Baptist University; Harry Timmermans, Eindhoven University of Technology, Netherlands

**Diurnal Variations in Visitor Populations from a Transportation Perspective (03-2369)**

Robbert Zandvliet and Martin Dijst, Utrecht University, Netherlands; Luca Bertolini, University of Amsterdam, Netherlands

**International Comparison of Long-Distance Travel: United Kingdom and the Netherlands (03-2428)**

Narisra Limtanakool, Martin Dijst, and Martin Lanzendorf, Utrecht University, Netherlands

**Analysis of Travel Time Saving Benefit by Understanding Individual Needs and Value of Activity Time: Case Study of Tokyo and Jakarta (03-3394)**

Irwan Prasetyo, Tokyo Institute of Technology, Japan; Hirosato Yoshino, Matsue National Highway Construction Office, Japan; Daisuke Fukuda, Tokyo Institute of Technology, Japan; Tetsuo Yai, Tokyo Institute of Technology, Japan

**TTB or not TTB, That Is the Question: Review and Analysis of Empirical Literature on Travel Time (and Money) Budgets (03-2519)**

Patricia L. Mokhtarian and Cynthia Chen, University of California, Davis

**Commitments and Modal Usage: Analysis of German and Dutch Panels (03-2091)**

Anja Simma, ARE - Bundesamt für Raumentwicklung, Switzerland; Kay Werner Axhausen, ETH Zurich, Switzerland

**Estimating Confidence Interval of Value of Travel Time (03-3614)**

Joong Rae Cho, Myongji University, Korea; Sunduck D. Suh, Hanyang University, Korea

**Simulating Household Travel Survey Data: Application to Two Urban Areas (03-3018)**

Peter R Stopher and Philip John Bullock, University of Sydney, Australia; Stephen Greaves, Monash University, Australia

**Benefits of Accommodating Latent Demand (03-3971)**

Joy Dahlgren, University of California, Berkeley

**Modeling the Choice to Use Toll and HOV Facilities (03-2466)**

Gregory D. Erhardt, Denver Regional Council of Governments; Frank S. Koppelman, Northwestern University; Joel Freedman, PBConsult, Inc.; William A. Davidson, PBConsult, Inc.; Andrew Mullins, Parsons Brinckerhoff

**Tracer Data Collection System: Implementation and Operational Experience (03-3933)**

James Edward Marca and Craig Ross Rindt, University of California, Irvine

**Behavioral Change in Activity/Travel Patterns in Response to Congestion Pricing Schemes: Results of a Field Experiment (03-2770)**

Geert Wets and Bertold Keuleers, Limburg University Centre, Belgium; Vincent Chow and Neil Thorpe, University of Newcastle Upon Tyne, United Kingdom; Harry Timmermans, Eindhoven University of Technology, Netherlands

**Personalizing Advanced Traveler Information (03-2559)**

Josias Zietsman and Laurence R. Rilett, Texas Transportation Institute

**Simulation of Regional Freight Movement on the TTMNet: Trade and Transportation Multinetworks (03-2576)**

Jinghua Xu and Kathleen L Hancock, University of Massachusetts; Frank Southworth, Oak Ridge National Laboratory

**Model of Household Trip Chain Sequencing in an Emergency Evacuation (03-3598)**

Pamela M. Murray, University of Texas, Austin; Hani S. Mahmassani, University of Maryland

**What Type of Vehicle Do People Drive? Role of Attitude and Lifestyle in Influencing Vehicle Type Choice (03-2390)**

Sangho Choo and Patricia L. Mokhtarian, University of California, Davis

**Empirical Investigation of Household Vehicle Type Choice Decisions (03-4360)**

Abolfazl Mohammadian, California State University, Sacramento; Eric J. Miller, University of Toronto, Canada

**Independent Mobility Among Teenagers: Exploration of Travel to After-School Activities (03-3412)**

Kelly J. Clifton, University of Maryland

**Analysis of Trip and Stop Duration for Shopping Activities: Simultaneous Hazard Duration Model System (03-4499)**

Karthik K. Srinivasan and Zhiyong Guo, Vanderbilt University

**Session 658**

**Wednesday, January 15, 2003, 10:15 AM - 12:00 PM, Hilton**

**Challenging Traditional Approaches to Travel Behavior Analysis**

Patricia L. Mokhtarian, University of California, Davis, presiding

*Sponsored by: A1C04 Committee on Traveler Behavior and Values; A1C02 Committee on Passenger Travel Demand Forecasting*

**Does Travel Have a Positive Utility? (P03-6737)**

Patricia L. Mokhtarian, University of California, Davis

**Some Evidence of Travelers with Zero Value of Time (03-2588)**

Anthony Joseph Richardson, The Urban Transport Institute, Australia

**Travel by Choice or Necessity? Case of the Soccer Mom and Other Stories (03-4363)**

Susan Handy, University of California, Davis; Lisa Weston, University of Texas, Austin

**Qualitative Subjective Assessments of Personal Mobility: Exploring Magnifying and Diminishing Cognitive Mechanisms Involved (03-2270)**

Gustavo Oscar Collantes and Patricia L. Mokhtarian, University of California, Davis

**Sensitivity to Uncertainty: Need for Paradigm Shift (03-3744)**

Erel Avineri and Joseph N. Prashker, Technion-Israel Institute of Technology

**Session 693**

**Wednesday, January 15, 2003, 2:30 PM - 4:00 PM, Hilton**

**Land Use-Transport Interaction Modeling**

John Douglas Hunt, University of Calgary, Canada, presiding

*Sponsored by: A1D02 Committee on Transportation and Land Development; A1C02 Committee on Passenger Travel Demand Forecasting*

**Regional Land Use and Transportation Planning Using Genetic Algorithm (03-2530)**

Richard Balling, Michael Blackmore Lowry, and Mitsuru Saito, Brigham Young University

**UPlan: Versatile Urban Growth Model (03-2542)**

Robert A. Johnston, University of California, Davis; David R. Shabazian, Sacramento Area Council of Governments; Shengyi Gao, University of California, Davis

**Dynamic Simulation of Real Estate Development and Land Prices Within Integrated Land Use and Transportation Model System (03-2974)**

Paul Waddell and Gudmundur Freyr Ulfarsson, University of Washington

**Propagation of Uncertainty in Transportation-Land Use Models: Investigation of DRAM-EMPAL and UTPP Predictions in Austin, Texas (03-2952)**

Sriram Krishnamurthy and Kara M. Kockelman, University of Texas, Austin

**Session 745**

**Wednesday, January 15, 2003, 7:30 PM - 9:30 PM, Hilton**

**Emerging Data Collection and Microsimulation Techniques for Activity-Based Travel Modeling**

Chandra R. Bhat, University of Texas, Austin, presiding

*Sponsored by: A1C02 Committee on Passenger Travel Demand Forecasting*

**Design and Implementation of Online Travel and Activity Survey (03-2924)**

James Edward Marca, University of California, Irvine

**Collecting Activity Data from GPS Readings (03-3956)**

James Edward Marca and Craig Ross Rindt, University of California, Irvine

**Systematic Investigation of Variability due to Random Simulation Error in Activity-Based Microsimulation Forecasting Model (03-4021)**

Joseph Castiglione, San Francisco County Transportation Authority; Joel Freedman, PBConsult, Inc.; Mark Bradley, Mark Bradley Research & Consulting

**Temporal-Spatial Microassignment and Sequencing of Travel Demand with Activity and Trip Chains (03-2323)**

Ahmed F. Abdelghany, United Airlines; Hani S. Mahmassani, University of Maryland

**Toward Activity-Based Microscopic Simulation of All of Switzerland (03-4267)**

Bryan Keith Raney, Nurhan Cetin, Andreas Vollmy, Milenko Vrtic, Kay Werner Axhausen, Kai Nagel, ETH Zurich, Switzerland

**Session 814**

**Thursday, January 16, 2003, 8:00 AM - 9:45 AM, Hilton**

**Innovative Analysis Methods in Travel Modeling**

Karthik K. Srinivasan, Vanderbilt University, presiding

*Sponsored by: AIC02 Committee on Passenger Travel Demand Forecasting*

**Parameterized Probabilistic Consideration Set Model for Airport Choice: Application to San Francisco Bay Area (03-3297)**

Gozen Basar and Chandra R. Bhat, University of Texas, Austin

**Dynamic Modeling of Household Automobile Transactions (03-4016)**

Abolfazl Mohammadian, California State University, Sacramento; Eric J. Miller, University of Toronto, Canada

**Combined Modal Split and Stochastic Assignment Model for Congested Networks with Nonmotorized and Motorized Transport Modes (03-2773)**

Zixiao Wu and William H.K. Lam, Hong Kong Polytechnic University

**Dynamic Origin-Destination Demand Estimation Using Multiday Link Traffic Counts for Planning Applications (03-4340)**

Xuesong Zhou, Xiao Qin, Hani S. Mahmassani, University of Maryland

**Estimation of O-D Matrices: Relationship Between Practical and Theoretical Considerations (03-2296)**

Hesham Ahmed Rakha, Virginia Tech Transportation Institute

**Session 815**

**Thursday, January 16, 2003, 8:00 AM - 9:45 AM, Hilton**

**Moving Activity-Based Approaches to Practice: Developments and Challenges**

Konstadinos G. Goulias, Pennsylvania State University, presiding

*Sponsored by: AIC04 Committee on Traveler Behavior and Values; AIC02 Committee on Passenger Travel Demand Forecasting*

**Toward Dynamic, Longitudinal, Agent-Based Microsimulation Models of Human Activity in Urban Settings (03-4071)**

Craig Ross Rindt and James Edward Marca, University of California, Irvine

**Constrained Allocation of Time and Money Between Activities and Travel: Review of Modeling Methodologies and New Utility Maximization Framework (03-2524)**

Cynthia Chen and Patricia L. Mokhtarian, University of California, Davis

**Panel Discussion (P03-6738)**

T. Keith Lawton, Metro Planning Department, Portland, Oregon

Ryuichi Kitamura, Kyoto University, Japan

Eric J. Miller, University of Toronto, Canada

Frank S. Koppelman, Northwestern University

Harry Timmermans, Eindhoven University of Technology, Netherlands