

NEWS



TRANSPORTATION RESEARCH BOARD

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News Release

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PAPER ON EMISSION MODELING WINS 2011 CHARLEY WOOTAN AWARD

The recipients of the Transportation Research Board (TRB) 2011 Charley V. Wootan Award for the outstanding paper in the field of policy and organization are Jiang Yang Hao of IBI Group, Toronto, Canada; Eric Miller of the University of Toronto; and Marianne Hatzopoulou of McGill University, Quebec, Canada. This award, which may be conferred annually, was established in memory of Wootan, who served as Director of the Texas Transportation Institute, Texas A&M University System, from 1976 until his retirement in 1993. He continued to be active in the university until his death in 2001. A 1984 W. N. Carey Award recipient, Wootan also served as Chairman of the TRB Technical Activities Council and chaired the TRB Executive Committee in 1980. The award will be presented on January 24, 2011, at the Thomas B. Deen Distinguished Lecture and Presentation of Outstanding Paper Awards during the TRB 90th Annual Meeting in Washington, D.C. The award-winning paper, *“Integrating An Activity-Based Travel Demand Model With Dynamic Traffic Assignment And Emission Models: An Implementation In The Greater Toronto Area,”* has been published in the *Transportation Research Record: Journal of the Transportation Research Board*, No. 2176.

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Microsimulation is becoming more popular in transportation research. The award-winning paper explores the potential of microsimulation by integrating an existing activity-based travel demand model with a dynamic agent-based traffic simulation model to conduct light-duty vehicle emission modeling. According to the authors, this improved method of emission modeling is more sensitive to the effect of congestion, and the linkage between individual vehicles and link emissions is preserved.

Jiang Yang Hao is a transportation planner for IBI Group, Toronto, Canada. He holds a B.A.Sc. degree in engineering science, infrastructure option, and an M.A.Sc degree in civil engineering from the University of Toronto. Hao was a member of co-award recipient Eric Miller's research team that developed an operational integrated urban model system for Canadian cities, using the Greater Toronto Hamilton Area as the case study. He worked on various sub-models that are responsible for population synthesis, trip generation, and mode assignment. He also assisted in validating model results using Transportation Tomorrow Survey data.

Eric Miller is a Professor in the Department of Civil Engineering, University of Toronto, and the inaugural Director of the University of Toronto Cities Centre. He has been on the faculty since 1983 and was the former Director of the University of Toronto Urban Transportation Research and Advancement Centre. Miller's research interests include integrated land use-transportation modelling; analysis of the relationship between urban form and travel behaviour; modelling transportation system energy use and emissions; and microsimulation modelling. As a developer, his credits include the *GTAModel*, a "best practice" regional travel demand modeling system used by the City of Toronto, the Region of Durham and the Cities of Mississauga and Brampton to forecast travel demand in the Greater Toronto Area (GTA); TASHA, a state-of-the-art activity-based microsimulation model of GTA travel; and ILUTE, an integrated land use-travel demand models system for the GTA. He has been active in TRB for a number of years and currently chairs the Committee on Travel Behavior and Values. Miller served on the National Research Council-TRB committee that produced the report, *Metropolitan Travel Forecasting: Current Practice and Future Direction* (2007). He is an Emeritus Member of the TRB Transportation Demand Forecasting Committee. Miller holds B.A.Sc. and M.A.Sc. degrees from the University of Toronto and a Ph.D. from the Massachusetts Institute of Technology.

Marianne Hatzopoulou is an Assistant Professor in Transportation Engineering at McGill University. Her main area of research expertise involves modelling of road transport emissions and assessing population exposure to air pollution through the integration of travel demand and environmental simulation. Hatzopoulou also has extensive experience in the development of evaluation tools for bridging transport policy analysis with decision making. She examines ways in which the sustainability impacts of transport policy scenarios can be quantified through the development of performance measures linked with large-scale land-use and transport models. She has authored publications on road transport emissions, urban air pollution, as well as policy appraisal and decision making for urban sustainability and has co-authored studies for agencies in Canada on dealing with regional planning, vehicle emissions, and organizational structures for travel demand modelling.

More than 10,000 policy makers, administrators, practitioners, researchers, and representatives of government, industry, and academic institutions are expected to attend the Transportation Research Board (TRB) 90th Annual Meeting, in Washington, DC, January 23-27, 2011. The meeting, held at the Marriott Wardman Park, Omni Shoreham, and Hilton Washington

hotels, includes more than 4,000 presentations in 650 sessions and workshops covering all aspects of transportation.

The mission of the Transportation Research Board is to provide leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multimodal. TRB facilitates the sharing of information on transportation practice and policy by researchers and practitioners; stimulates research and offers research management services that promote technical excellence; provides expert advice on transportation policy and programs; and disseminates research results broadly and encourages their implementation. A major focal point of TRB's activities, the Annual Meeting provides an opportunity for transportation professionals from all over the world to exchange information of common interest.

Organized in 1920, TRB is a division of the National Academies, which include the National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council. The nation turns to the National Academies for independent, objective advice on issues that affect people's lives worldwide.

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