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Education

Undergraduate Studies:

- B.Sc in Civil Engineering: Universidad del Norte, Barranquilla, Colombia.

Graduate Studies:

- M.Sc. in Engineering Sciences (Area of Transport Engineering and Logistics): Pontificia Universidad Católica de Chile, Santiago, Chile, 2012.
- PhD. in Engineering Sciences (Area of Transport Engineering and Logistics): Pontificia Universidad Católica de Chile, Santiago, Chile, 2012.

Academic Experience

Undergraduate Courses

- *Universidad del Norte, 2012 – Present.*
 - *Transportation Engineering*
 - *Topography*

Graduate Courses

- *Universidad del Norte, 2012 – Present.*
 - *Research I*
 - *Advanced Models of Transport Networks*
 - *Transportation Demand Models*
 - *Transport Economics*
- *Universidad Nacional de Colombia, 2014.*
 - *Transportation Demand Models*

Research Experience

International Presentations

- *“Seminario diseño de experimentos de preferencias declaradas y modelos avanzados de elección discreta”.* Arellana, J. Cal y Mayor Asociados, México D.C. 2014.
- *“Departure time choice models. Transportation Research Board Annual Meeting”.* Arellana, J., Ortúzar, J. de D., y Rizzi, L.I. TRB Doctoral Student Research in Transportation Modelling. Washington D.C. (USA), January 13, 2013.
- *“Embedding flexibility as a latent variable within time-of-day choice models”.* Arellana J., Daly A., Hess S., Ortúzar J. de D., y Rizzi L.I. Modelling Behaviour: Recent Advances and Future Directions, ITS Workshop, University of Leeds. Leeds (England), September 08, 2011.

Publications

- *“Obtaining public transport level-of-service measures using in-vehicle GPS data and freely available GIS web-based tools”.* Arellana J., Ortúzar J. de D., Rizzi L.I., y Zuñiga F. In *Mobile technologies for activity-travel data collection and analysis*. Rasouli, S. & Timmermans, H.J.P. (eds). IGI Global: New York, 2014, pp. 258-275.
- *“The influence of built environment and travel attitudes on walking: a case study of Porto Alegre, Brazil”.* Larrañaga A.M., Rizzi L.I., Cybis H.B.B., Arellana J., y Strambi O. *International Journal of Sustainable Transportation*. In press.
- *“How are confort and safety perceived by inland waterway transport passengers?”* Marquez, L., Cantillo, V. y Arellana, J. *Transport Policy*, 2014, pp. 46-52.
- *“Modelación híbrida para la elección de vehículos con energías alternativas”.* Soto, J., Cantillo, V. y Arellana, J. *Interciencia*. Volume 39, Issue 9, 2014, pp. 666-672.
- *“Survey data to model time-of-day choice: methodology and findings in Transport Survey Methods: Best Practice for Decision Making”.* Arellana J., Ortúzar J. de D., y Rizzi L.I. *Emerald*, 2013.
- *“Developing surveys for the study of departure time choice: a two-stage efficient design approach”.* Arellana J., Daly A., Hess S., Ortúzar J. de D., y Rizzi L.I. *Transportation Research Record*. 2012, pp. 9-18.
- *“Diseño experimental de PD con dependencia entre niveles de atributos: Aplicación a modelos de elección de horario de viajes”.* Arellana J., Ortúzar J. de D., y Rizzi L.I. *Revista Ingeniería de Transporte*. 2012. In press.
- *“Modelling pedestrian crossing behaviour in urban roads: a latent variable approach”.* Cantillo, V., Arellana, J., y Rolong, M. *Transportation Research Part F*. 2014.

- *"Mobile phone use while driving: a hybrid modelling approach".* Marquez, L., Cantillo, V., y Arellana, J. *Accident Analysis and Prevention*. 2014.
- *"Análisis geoespacial de muertos y heridos por accidentes de tráfico en zonas urbanas: aplicación a Barranquilla, Colombia".* Martínez, A., Arellana, J., Coronell, G., y Cantillo, V. *XVII Congreso Panamericano de Ingeniería del tránsito, transporte y logística. Santander (Spain), June 11-13, 2014.*
- *"Evaluación de políticas para incentivar el uso de vehículos con tecnologías alternativas".* Soto, J., Cantillo, V., y Arellana, J. *XVII Congreso Panamericano de Ingeniería del tránsito, transporte y logística. Santander (Spain), June 11-13, 2014.*
- *"Modelación de la elección de puerto desde una perspectiva desagregada: un análisis para los puertos colombianos".* Vega, L., Cantillo, V., y Arellana, J. *XVII Congreso Panamericano, 2014.*
- *"Percepciones de comodidad y seguridad en transporte fluvial de pasajeros".* Márquez, L., Cantillo, V., y Arellana, J. *XVII Congreso Panamericano de Ingeniería del tránsito, transporte y logística. Santander (Spain), June 11-13, 2014.*
- *"Análisis del comportamiento de peatones al cruzar vías urbanas usando datos de preferencias reveladas y declaradas".* Fernández, S., Figueroa, M., Arellana, J., y Cantillo, V. *XVII Congreso Panamericano de Ingeniería del tránsito, transporte y logística. Santander (Spain), June 11-13, 2014.*
- *"Influence of GPS and self-reported data in travel demand models".* Domeles, M., Larrañaga, A.M., Arellana, J., y Cybis, H. *XVII Congreso Panamericano de Ingeniería del tránsito, transporte y logística. Santander (Spain), June 11-13, 2014.*
- *"Análisis geoespacial de muertos y heridos por accidentes de tráfico en zonas urbanas: aplicación a Barranquilla, Colombia".* Martínez, A., Arellana, J., Coronell, G., y Cantillo, V. *XVI Congreso de Ingeniería del Transporte. Santander (Spain), June 9-11, 2014.*
- *"Vehicle choice and shipment size: simultaneous estimation of a discrete-continuous hybrid model".* Cantillo, V., Arellana, J., y Visbal, J. *XVI Congreso de Ingeniería del Transporte. Santander (Spain), June 9-11, 2014*
- *"Modelación de la elección de puerto desde una perspectiva desagregada: un análisis para los puertos colombianos".* Vega, L., Cantillo, V., y Arellana, J. *XVI Congreso de Ingeniería del Transporte. Santander (Spain), Junio 9-11, 2014*
- *"Análisis del comportamiento de peatones al cruzar vías urbanas usando datos de preferencias reveladas y declaradas".* Fernández, S., Figueroa, M., Arellana, J., y Cantillo, V. *XVI Congreso de Ingeniería del Transporte. Santander (Spain), June 9-11, 2014*
- *"Estimation of joint travel mode and departure time choice models for work based trips using combined revealed preference (RP) and stated preference (SP) data".* Arellana, J., Lizana, P., Ortúzar, J. de D., y Rizzi, L.I. *World Conference on Transportation Research. Río de Janeiro (Brazil), July 15-18, 2013.*

- *“Alternative fuelled vehicles: demand modeling”*. Soto, J.J., Cantillo, V., y Arellana, J. World Conference on Transportation Research. Río de Janeiro (Brazil), July 15-18, 2013.
- *“Accounting for differences in panel effect across respondents within discrete choice models”*. Arellana, J., Ortúzar, J. de D., Rizzi, L.I., y Cantillo, V. International Choice Modelling Conference 2013, Sidney (Australia), July 3-5, 2013.
- *“Hybrid choice modeling of alternative fuel vehicles including second order structural equations”*. Soto, J.J., Cantillo, V., y Arellana, J. International Choice Modelling Conference 2013, Sidney (Australia), Julio 3-5, 2013.
- *“Obtaining public transport level-of-service measures using in vehicle GPS data and freely available GIS web-based tools”*. Arellana J., Ortúzar J. de D., Rizzi L.I., y Zuñiga F. Transportation Research Board Annual Meeting. Washington D.C. (USA), January 13-17, 2013.
- *“Obtaining public transport level-of-service measures using in vehicle GPS data and freely available GIS web-based tools”*. Arellana J., Ortúzar J. de D., Rizzi L.I., y Zuñiga F. Conference on Advanced Systems for Public Transport. Santiago (Chile), July 23-27, 2012.
- *“The flexibility of departure time for work based trips: an integrated choice and latent variable approach”*. Arellana J., Daly A., Hess S., Ortúzar J. de D., y Rizzi L.I. 2012 IATBR Conference. Toronto (Canada), July 15-19, 2012.
- *“Do scheduling attitudes influence departure time choice decisions?”* Arellana J., Daly A., Hess S., Ortúzar J. de D., y Rizzi L.I. 2012 PANAM Conference. Santiago (Chile), September 24-27, 2012.
- *“All travellers care about the same when deciding the time of travel? A multivariate analysis of departure time preferences”*. Arellana J., Olarú D., Ortúzar J. de D., y Rizzi L.I. 2012 PANAM Conference. Santiago (Chile), September 24-27, 2012.
- *“Elección de vehículos con energías alternativas en Colombia: modelación híbrida”*. Soto, J.J., Cantillo, V., y Arellana, J. 2012 PANAM Conference. Santiago (Chile), September 24-27, 2012.
- *“Comportamiento de peatones cruzando vías urbanas “*. Rolong, M., Cantillo, V., y Arellana, J. 2012 PANAM Conference. Santiago (Chile), September 24-27, 2012.
- *“Obtaining public transport level-of-service measures using in vehicle GPS data and freely available GIS web-based tools”*. Arellana J., Ortúzar J. de D., Rizzi L.I., y Zuñiga F. Conference on Advanced Systems for Public Transport. Santiago (Chile), July 23-27, 2012.
- *“Stated preference design for departure time models including dependency between attribute levels”*. Arellana J., Daly A., Hess S., Ortúzar J. de D., y Rizzi L.I. XV Congreso Chileno de Ingeniería de Transporte. Santiago (Chile), October 3 – 6, 2011.

Research Projects and Consultancies

- *Strengthening ICT innovation nodes applied to health*
- *LOGPORT Project - Port Logistics for the Caribbean Region*

- *Design of experiments PD and estimation of discrete choice models for load flow in Mato Grosso do Sul, Brazil PANTEIA-GISTRAN-NGT Consortium*
- *Design of Experiments PD and estimation of discrete choice models for load flow in Mato Grosso do Sul, Brazil Consortium STE-SD Consultoria e Engenharia Ltda-DYNATEST*
- *Models for evaluating service quality of urban road infrastructure in Colombia*
- *Models for evaluating service quality of urban road infrastructure in Colombia*
- *Prototyping for Advanced Public Transportation Systems (APTS) to improve the operation of systems of mass transit in the urban context*
- *Econometric and geospatial Modeling of road accidents in urban areas of Colombia*
- *Road Safety Project over 12,000 km of the national road network in Colombia.*
- *Design and development of the Mobility Plan of the Municipality of Planeta Rica, Córdoba, Colombia.*
- *Survey design and analysis revealed preference data in the draft update of longitudinal survey to study the choice of mode of transport in Santiago de Chile*
- *Demand for high speed rail in Norway*
- *Advances in Urban Planning Models: Issues in Land Use and Travel Departure Time*
- *Project for structure and implement the conceptual model to quantify the current demand, estimate future demand and determine the mobilization of passenger transport in the land, river, rail, and air modes at national and international level*