# Cristian Domarchi

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### Professional Summary

Civil Engineer with Major in Transport, Universidad de Concepción (Chile). MSc in Transport Engineering, Pontificia Universidad Católica (Chile). PhD in Behaviour Informatics at Newcastle University. 15-year experience in transport behaviour modelling, data collection and analysis, social surveys, and statistical modelling.

#### EDUCATION

# Newcastle University

Newcastle upon Tyne, UK

Ph.D. in Behaviour Informatics

2019 - 2024

Thesis: Integrated diffusion and choice models for innovative transport alternatives: An application to the electric vehicle market.

Supervisors: Prof. Elisabetta Cherchi and Dr. Quoc C. Vuong.

### Pontificia Universidad Católica de Chile

Santiago, Chile

M. Sc. in Engineering Sciences, Transportation and Logistics

2014 - 2017

Thesis: Modelling the behaviour of share taxi users in Santiago, Chile (Maximum distinction)

Supervisors: Prof. Juan de Dios Ortúzar and Prof. Juan Enrique Coeymans.

# Universidad de Concepción

Concepción, Chile

B. Sc. in Civil Engineering with Major in Transport

2001 - 2007

Thesis: Effect of habit, attitudes and affective appraisal on modal choice and car use: an application to university workers. (Maximum distinction)

Supervisor: Prof. Alejandro Tudela.

#### Professional Experience

# University of Southampton

Southampton, UK

 $Research\ fellow$ 

2024-current

Postdoctoral researcher working in Survey Futures, a large-scale research project funded by the UKRI-ESRC, and aiming to ensure large-scale social surveys in the UK can innovate and adapt in a changing environment.

Elsevier

Remote

 $Administrative\ assistant$ 

2019 - 2024

Assistant to the Editor-in-Chief of the *Transportation Research Part A: Policy and Practice* journal, Professor Elisabetta Cherchi.

Self-employed

Santiago, Chile

Technical advisor

Newcastle upon Tyne, UK

Transport demand modelling; motorway traffic forecasting; analysis of public transport systems (buses and share taxi); estimations of fare evasion in Santiago's public transport systems; over 25 data collection studies for public transport systems, including origin-destination, stated choice, and satisfaction surveys.

DICTUC S. A. Santiago, Chile

Transport modeller

2007 – 2018
Technical advisor for studies involving traffic demand estimation, public transport, and stated preferences studies in the

transport context for clients including LAMSAC (Lima, Peru), TYPSA (Santiago, Chile), the Ministry of Transport and Telecommunications (Chile), and the Inter-American Development Bank (IADB).

# TEACHING EXPERIENCE

# University of Southampton

Southampton, UK

Module leader: Dr. Olga Maslovskaya.

2025

Guest lecturer, module: STAT6136 (Survey Design and Data Quality, 1 term).

# Newcastle University

Newcastle upon Tyne, UK

Module leader: Professor Elisabetta Cherchi.

2022 - 2023

Demonstrator/Teaching Assistant in two modules: CE8423 (Transport Research Methods, 2 terms), CEG8419 (Transport Modelling and Forecasting, 2 terms).

# Universidad de Concepción

Concepción, Chile

Module leader: Professor Alejandro Tudela.

2022 - 2023

Demonstrator/Teaching Assistant, Transportation Engineering module (3 terms).

#### Journal articles

- Domarchi, C., Cherchi, E. & Vuong, Q. C. (2025) Cognitive consistency and preferences for alternative fuel vehicles: a latent class model. *Transportation Research Part D: Transport and Environment*. Submitted, under review.
- Domarchi, C., Vuong, Q. C. & Cherchi, E. (2024) The role of emotional coherence in electric vehicle purchasing decisions. Transportation Research Part F: Traffic Psychology and Behaviour 107, 997–1014. https://doi.org/10.1016/j.trf.2024.10.018
- Domarchi, C. & Cherchi, E. (2024) Role of car segment and fuel type in the choice of alternative fuel vehicles: A cross-nested logit model for the English market. *Applied Energy* **357**, 122451. https://doi.org/10.1016/j.apenergy.2023.122451
- Domarchi, C. & Cherchi, E. (2023) Electric vehicle forecasts: a review of models and methods including diffusion and substitution effect. *Transport Reviews* 43(6), 1118–1143. https://doi.org/10.1080/01441647.2023.2195687
- Domarchi, C., Coeymans, J. E. & Ortúzar, J. de D. (2019) Shared taxis: Modelling the choice of a paratransit mode in Santiago de Chile. *Transportation* 46(6), 2243–2268. https://doi.org/10.1007/s11116-018-9926-z
- **Domarchi, C.**, Tudela, A. & González, A. (2008) Effect of attitudes, habit and affective appraisal on mode choice: an application to university workers. *Transportation* **35(5)**, 585–599. https://doi.org/10.1007/s11116-008-9168-6

### Book chapters

- Domarchi, C. & Ortúzar, J. de D. (2021) A geography of road transport in cities. In: Vickerman, R. (ed.) International Encyclopedia of Transportation Vol. 5., 300–305, Elsevier, New York.
- Alcaíno, P., Domarchi, C. & López, S. (2012) Time, poverty and transport: An exploration into mobility patterns
  contribution to poverty measurements. In: Carrasco, J. A., Jara-Díaz, S. & Munizaga, M. (eds.) Time Use
  Observatory, 9-27. Instituto Sistemas Complejos de Ingeniería (ISCI), Santiago, Chile.

# Selected conferences — Transport behaviour

- Domarchi, C., Cherchi, E. & Vuong, Q. C. (2025) Forecasting the diffusion of electric vehicles: An agent-based model including household choice and social effects of coherence and communication. 13th Symposium of the European Association for Research in Transportation (hEART Conference), Munich, Germany, June (submitted, speaker).
- Iglesias, P., Ortúzar, J. de D., **Domarchi, C.** & Guajardo, F. (2024) Encouraging the adoption of electric cars in large Latin American cities: A stated choice study for Bogota and Santiago. *International Choice Modelling Conference 2024*. Puerto Varas, Chile, April.
- Domarchi, C., Cherchi, E. & Vuong, Q. C. (2024) Heterogeneity in preferences for alternative fuel vehicles: A latent class choice model including psychological factors. 17th International Conference on Travel Behaviour Research (IATBR), Vienna, Austria, July (speaker).
- Domarchi, C. & Cherchi, E. (2024) Role of car segment and fuel type in the choice of alternative fuel vehicles: A cross nested logit model for the English market. 103rd Transportation Research Board (TRB) Annual Meeting, Washington DC, January (speaker).
- **Domarchi, C.** & Cherchi, E. (2023) Changes in car ownership due to life events: Insights from the UK Longitudinal Survey. 11th Symposium of the European Association for Research in Transportation (hEART Conference), Zürich, Switzerland, September (speaker).
- Domarchi, C. & Cherchi, E. (2022) Joint models of car segment and fuel type choice for alternative fuel vehicles: application to the UK market. 16th International Conference on Travel Behaviour Research (IATBR), Santiago, Chile, December (speaker).

# $Selected\ conferences\ --\ Survey\ methodology$

- **Domarchi, C.**, Maslovskaya, O., Lynn, P., Ndebele, N., Fitzgerald, R. & Comanaru, R. (2025) Social surveys without field interviewers in the UK: An evidence review. 11th Conference of the European Survey Research Association (ESRA), Utrecht, The Netherlands, July (accepted; speaker).
- Domarchi, C., Maslovskaya, O., Calderwood, L. & Brown, M. (2025) Retrospective measurement of life events in online self-completion surveys: An evidence review. 11th Conference of the European Survey Research Association (ESRA), Utrecht, The Netherlands, July (accepted; speaker).
- Maslovskaya, O., **Domarchi, C.**, & Smith, P.W.F. (2025) Knock-to-nudge methods to improve survey participation in the UK. *The 27th General Online Research Conference GOR25*, Berlin, Germany, March-April (accepted; speaker).
- Domarchi, C., Maslovskaya, O., Lynn, P., Ndebele, N., Fitzgerald, R. & Comanaru, R. (2025) Social surveys without field interviewers in the UK: An evidence review. *The 27th General Online Research Conference GOR25*, Berlin, Germany, March-April (accepted; speaker).

### REVIEWING FOR ACADEMIC JOURNALS

• Reviewer for Transportation Research Part A, Travel Behaviour and Society, Geoforum, Research in Transportation Economics, Transport Policy, Transport Reviews.

### OTHER ACADEMIC ACTIVITIES

- Session organiser, two sessions at the 11th Conference of the European Survey Research Association (ESRA), Utrecht, The Netherlands, July 2025.
- Conference organiser, Survey Futures 1st Early Career Researchers Conference, University of Essex, 7th February 2024.
- MSc Thesis Supervisor, MSc (Social Sciences) in Social Statistics (Research Methods), Department of Social Statistics and Demography, University of Southampton, 2024–2025.

# AWARDS AND SCHOLARSHIPS

- Newcastle Overseas Research Scholarship (NUORS, 2019) at Newcastle University, UK, funding PhD studies.
- Leverhulme Postgraduate Research Studentship at Newcastle University, UK (2019), funding PhD studies.
- DICTUC Scholarship (2014), for professionals working in DICTUC S. A., supporting post-graduate studies.
- "Faculty of Engineering" Award (2007), for academic achievement, Universidad de Concepción.
- Universidad de Concepción Scholarship (2001) as one of the top 10 admission scores.

### Software

- Generic software (advanced): MS Excel (including macros in Visual Basic), other Office components.
- Discrete choice software (advanced): Apollo (R), Pandas Biogeme (Python), Alogit, Larch (Python).
- Statistical software (advanced): R (and associated packages), Stata.
- Other (advanced): NetLogo, (user): SPSS, QGis, LaTex, NGene, Python.

### Training

- Accredited Researcher, Office for National Statistics (UK), 2024–2028.
- Diploma in Statistics, Pontificia Universidad Católica (Chile), 2011.

# LANGUAGE

• Spanish (Native), English (Full professional proficiency).

February 2025