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Profesor Asistente
División Ingeniería de Transporte
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Universidad de Chile

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INFORMACIÓN PERSONAL

Fecha de nacimiento
3 de Agosto de 1981

Lugar de nacimiento
Castro, Chiloé, Chile

Nacionalidad
Chilena

TÍTULOS Y GRADOS

Doctor of Philosophy (PhD)
The University of Sydney (2012)

Magíster en Ingeniería de Transporte
Universidad de Chile (2007)

Ingeniero Civil
Universidad de Chile (2007)

**Licenciado en Ciencias de la Ingeniería,
mención Civil**
Universidad de Chile (2005)

PERSONAL INFORMATION

Date of birth
August 3rd, 1981

Place of birth
Castro, Chiloé, Chile

Nationality
Chilean

ACADEMIC BACKGROUND

Doctor of Philosophy (PhD)
The University of Sydney (2012)

Master of Science in Transport Engineering
Universidad de Chile (2007)

Civil Engineer
Universidad de Chile (2007)

Bachelor of Science in Civil Engineering
Universidad de Chile (2005)

EXPERIENCIA PROFESIONAL

Mar 2013 a la fecha
Profesor Asistente, Universidad de Chile

Ago 2012 – Dic 2012
Analista de investigación, Institute of Transport and Logistics Studies, The University of Sydney.

Mar 2009 - Dic 2011
Busways Group, Sydney, Australia. Investigador externo, análisis y estimación de tiempos de viaje de bus

Nov 2007 – Ago 2008
ICR Consultores, Santiago, Chile. Trabajo tiempo completo, analista de proyectos, modelamiento de redes urbanas y nuevos proyectos de transporte público en Santiago.

May 2007 - Ago 2007
Busways Group, Sydney, Australia. Trabajo tiempo parcial en el Departamento de Planeamiento. Análisis de rutas y programación de servicios.

PROYECTOS DE INVESTIGACIÓN

Nov 2013 – Oct 2017 (4 años)
Investigador Principal Proyecto Fondecyt Iniciación: “Efectos Sociales y Valoración de la Calidad de Servicio en Transporte Público”, financiado por la Comisión Nacional de Investigación Científica y Tecnológica (CONICYT, Chile).

Nov 2013 – Oct 2016 (3 años)
Investigador Principal acuerdo específico de desarrollo “Análisis de Demanda y Operación del Sistema de Transporte Público de Santiago”, FCFM – Subsecretaría de Transportes

PROFESSIONAL EXPERIENCE

Mar 2013 to date
Assistant Professor, Universidad de Chile

Aug 2012 – Dic 2012
Research Analyst, Institute of Transport and Logistics Studies, The University of Sydney.

Mar 2009 - Dec 2011
Busways Group, Sydney, Australia. External researcher, analysis and estimation of bus travel times.

Nov 2007 – Aug 2008
ICR Consultores, Santiago, Chile. Full-time position as projects analyst. Modelling and analysis of urban traffic networks and new public transport projects in Santiago.

May 2007 - Aug 2007
Busways Group, Sydney, Australia. Part-time position in the scheduling department. Analysis of routes and timetabling of bus services.

RESEARCH PROJECTS

Nov 2013 – Oct 2017 (4 years)
Principal Investigator Fondecyt Iniciación Project: “Social Effects and Quality of Service Valuation of Public Transport Services”, funded by the National Commission for Scientific and Technological Research (CONICYT, Chile).

Nov 2013 – Oct 2016 (3 years)
Principal Investigator project “Analysis of Demand and Operation of Santiago’s Public Transport System”, FCFM – Transport Undersecretary

DOCENCIA

2013-2015

Universidad de Chile

Profesor de cátedra en cursos:

- Ingeniería de Tránsito
- Planificación y Control de Proyectos
- Taller de Proyecto en Ingeniería de Tránsito
- Transporte Sustentable

2004 - 2006

Universidad de Chile

Profesor auxiliar, curso Análisis de Sistemas de Transporte

VISITAS ACADÉMICAS

Nov 2012, Jul 2014

Departamento de Planificación de Sistemas de Transporte y Telemática, Universidad Técnica de Berlin (TU Berlin), Alemania.

Nov 2012

Future Cities Laboratory, ETHZ, Singapur.

Abr 2012 – Jun 2012

Instituto de Planificación de Transporte y Sistemas (IVT), Instituto Federal Suizo de Tecnología (ETHZ), Zurich, Suiza.

Jun 2011 – Ago 2011

Estudiante de doctorado visitante, Centro de Estudios Económicos, Universidad Católica de Lovaina (KUL), Bélgica.

Mar 2007 – Ago 2007

Estudiante de magíster visitante, Institute of Transport and Logistics Studies (ITLS), The University of Sydney, Australia.

TEACHING

2013-2015

Universidad de Chile

Lecturer in courses:

- Traffic Engineering
- Project Planning and Control
- Project Workshop on Traffic Engineering
- Sustainable Transport

2004 - 2006

Universidad de Chile

Assistant teacher course Transport Systems Analysis

ACADEMIC VISITS

Nov 2012, Jul 2014

Department of Transportation System Planning and Telematics, Technische Universität Berlin, Germany.

Nov 2012

Future Cities Laboratory, ETHZ, Singapore.

Apr 2012 – Jun 2012

Institute for Transport Planning and Systems (IVT), Swiss Federal Institute of Technology (ETHZ), Zurich, Switzerland.

Jun 2011 – Aug 2011

Visiting PhD Student, Center for Economic Studies, Katholieke Universiteit Leuven, Belgium.

Mar 2007 – Aug 2007

Visiting MSc Student, Institute of Transport and Logistics Studies (ITLS), The University of Sydney, Australia.

BECAS

2009-2011

Beca World Scholars para estudiantes de doctorado extranjeros, The University of Sydney.

2009-2012

Beca de Doctorado por Gestión Propia, Comisión Nacional de Investigación Científica y Tecnológica (CONICYT, Chile), para estudiantes de doctorado chilenos.

2005-2006

Beca de Excelencia Académica para estudiantes del Magíster en Ingeniería de Transporte, Departamento de Ingeniería Civil, Universidad de Chile.

PUBLICACIONES

(A) Artículos en revistas sujetas a referato

i. Revistas indexadas ISI

A21. Gibson, J., M.A. Munizaga, C. Schneider, Tirachini, A., 2015. Estimating bus user time benefits of implementing a median busways: methodology and case implementation. Transportation Research Part A, forthcoming.

A20. Tirachini, A., 2015. Probability distribution of walking trips and effects of restricting free pedestrian movement on walking distance. Transport Policy 37, 101-110.

<http://www.sciencedirect.com/science/article/pii/S0967070X14002078>

A19. Kaddoura, I., Kickhöfer, B., Neumann, A., Tirachini, A., 2015. Optimal public transport pricing: Towards an agent-based marginal social cost approach. Journal of Transport Economic and Policy 49(2), 200-218

<http://www.ingentaconnect.com/content/lse/jtep/2015/00000049/00000002/art00003>

A18. Kaddoura, I., Kickhöfer, B., Neumann, A., Tirachini, A., 2015. Agent-based optimisation of public transport supply and pricing: impacts of activity scheduling decisions and simulation randomness. Transportation, published online:

SCHOLARSHIPS

2009-2011

World Scholars award for international PhD students at The University of Sydney.

2009-2012

Doctorado por Gestión Propia Scholarship from the National Commission for Scientific and Technological Research (CONICYT, Chile) for Chilean PhD students.

2005-2006

Academic Excellency Scholarship for students of the Master of Transport Engineering program, Civil Engineering Department, Universidad de Chile.

PUBLICATIONS

(A) Papers in Refereed Journals

i. ISI Journals

<http://link.springer.com/article/10.1007%2Fs11116-014-9533-6>

A17. Sun, L., Tirachini, A., Axhausen, K. W., Erath, A., Lee, D.-H., 2014. Models of bus boarding and alighting dynamics. *Transportation Research Part A* 69, 447-460.

<http://www.sciencedirect.com/science/article/pii/S0965856414002183>

A16. Tirachini, A., Hensher, D.A., Bliemer, M.C.J. (2014) Accounting for travel time variability in the optimal pricing of cars and buses. *Transportation* 41(5), 947-971.

<http://link.springer.com/article/10.1007%2Fs11116-014-9515-8>

A15. Tirachini, A., Hensher, D. A., Rose, J.M. (2014) Multimodal pricing and optimal design of urban transport transport: the interplay between traffic congestion and bus crowding. *Transportation Research Part B*, 61: 33-54.

<http://www.sciencedirect.com/science/article/pii/S0191261514000046>

A14. Tirachini, A. (2014). The economics and engineering of bus stops: Spacing, design and congestion. *Transportation Research Part A* 59: 37-57.

<http://www.sciencedirect.com/science/article/pii/S0965856413001900>

A13. Tirachini, A., Hensher, D. A., Rose, J. M. (2013). Crowding in public transport systems: effects on users, operation and implications for the estimation of demand. *Transportation Research Part A* 53: 36-52.

<http://www.sciencedirect.com/science/article/pii/S0965856413001146>

A12. Tirachini, A. (2013). Bus dwell time: the effect of different fare collection systems, bus floor level and age of passengers. *Transportmetrica A* 9(1): 28-49.

<http://www.tandfonline.com/doi/abs/10.1080/18128602.2010.520277?journalCode=ttra21#.VEayPI5NSI>

A11. Tirachini, A. (2013). Estimation of travel time and the benefits of upgrading the fare payment technology in urban bus services. *Transportation Research Part C* 30: 239-256.

<http://www.sciencedirect.com/science/article/pii/S0968090X11001598>

A10. Hensher, D. A., Rose, J. M., Leong, W., Tirachini, A., Li, Z. (2013). Choosing public transport—incorporating richer behavioural elements in modal choice models. *Transport Reviews* 33(1): 92-106.

<http://www.tandfonline.com/doi/abs/10.1080/01441647.2012.760671#.VEayPI5NSI>

A9. Jara-Díaz, S.R, Tirachini, A. (2013) Urban bus transport: open all doors for boarding. *Journal of Transport Economics and Policy* 47(1), 91-106.

<http://www.ingentaconnect.com/content/lse/jtep/2013/00000047/00000001/art00006>

A8. Li, Z., Tirachini, A., Hensher, D. A. (2012) Embedding risk attitudes in a scheduling model: application to the study of commuting departure time. *Transportation Science*, 46(2), 170–188

<http://pubsonline.informs.org/doi/abs/10.1287/trsc.1110.0389>

A7. Tirachini, A., Hensher, D.A. (2012) Multimodal transport pricing: first best, second best and extensions to non-motorized transport. *Transport Reviews* 32 (2), 181-202.

<http://www.tandfonline.com/doi/abs/10.1080/01441647.2011.635318#.VEazdvI5NSI>

A6. Sáez, D., Cortés, C.E., Milla, F., Núñez, A., Tirachini, A., Riquelme, M (2012) Hybrid predictive control strategy for a public transport system with uncertain demand. *Transportmetrica* 8(1), 61-86.

<http://www.tandfonline.com/doi/abs/10.1080/18128601003615535#.VEazivI5NSI>

A5. Tirachini, A., Hensher, D. A. (2011) Bus congestion, optimal infrastructure investment and the choice of a fare collection system in dedicated bus corridors. *Transportation Research Part B: Methodological* 45(5), 828-844

<http://www.sciencedirect.com/science/article/pii/S0191261511000208>

A4. Cortés, C.E., Jara-Díaz, S., Tirachini, A. (2011) Integrating short turning and deadheading in the optimization of transit services. *Transportation Research Part A: Policy and Practice* 45(5), 419-434

<http://www.sciencedirect.com/science/article/pii/S0965856411000310>

A3. Tirachini, A., Cortés, C.E., Jara-Díaz, S.R. (2011) Optimal design and benefits of a short turning strategy for a bus corridor. *Transportation* 38(1), 169-89

<http://link.springer.com/article/10.1007%2Fs11116-010-9287-8>

A2. Tirachini, A., Hensher, D. A., Jara-Díaz, S. R. (2010) Restating modal investment priority with an improved model for public transport analysis. *Transportation Research Part E: Logistics and Transportation Review* 46(6), 1148-68.

<http://www.sciencedirect.com/science/article/pii/S1366554510000190>

A1. Jara-Díaz, S., Tirachini, A., Cortés, C.E. (2008) Modelling public transport corridors with aggregate and disaggregate demand. *Journal of Transport Geography* 16, 430-35.

<http://www.sciencedirect.com/science/article/pii/S0966692308000598>

ii. Revistas no indexadas en ISI

ii. Non-ISI Journals

A2.1. Tirachini, A., Hensher, D. A., Jara-Díaz, S. R. (2010) Comparing operator and users costs of light rail, heavy rail and bus rapid transit over a radial public transport network. *Research in Transportation Economics* 29 (1), 231-42.

(B) Actas de Conferencias

(B) Conference Proceedings

B8. Gibson, J., M.A. Munizaga, C. Schneider and A. Tirachini (2015). Median busways versus mixed-traffic: estimation of bus travel time under different priority conditions with explicit modelling of delay at traffic signals. Transportation Research Board 94th Annual Meeting, Washington DC. Accesible at <http://docs.trb.org/prp/15-1260.pdf>

B7. Gibson, J., M.A. Munizaga, C. Schneider, Tirachini, A., 2014. Estimating bus user time benefits of implementing a median busways: methodology and case implementation. XVIII Pan-American Conference of Traffic and Transportation Engineering, Santander, Spain.

B6. Tirachini, A., Hensher, D. A., Rose, J.M. (2013) Seis pasajeros por metro cuadrado: Efectos del hacinamiento en la oferta de transporte público, el bienestar de los usuarios y la estimación de demanda. XVI Congreso Chileno de Ingeniería de Transporte, Santiago, Chile, Octubre 2013 <http://www.congresotransporte.uchile.cl/index.php/CIT/article/download/28402/30097>

B5. Tirachini, A. Hensher, D. A. (2010) Beyond frequency and capacity: the choice of running speed and fare collection system in congested bus corridors. 5th Kuhmo-Nectar Conference on Transport Economics, Valencia, Spain, July 8-9

B4. Tirachini, A., Cortés, C.E., Jara-Díaz, S. (2007) Estrategia integrada de asignación de flota en un corredor de transporte público. XIII Congreso Chileno de Ingeniería de Transporte, Santiago, Chile, Octubre 2007

B3. Tirachini, A., Cortés, C.E. (2007) Disaggregated modeling of pre-planned short-turning strategies in transit corridors. 2007 *TRB 86th Annual Meeting*, Washington DC, USA.

B2. Tirachini, A. (2006) Impactos de reducir la movilidad de los peatones. Congreso Panamericano de Ingeniería de Tránsito y Transporte, Las Palmas de Gran Canaria, España, Septiembre 2006.

B1. Tirachini, A., Cortés, C.E. (2006) La estrategia *deadheading* en corredores de transporte público. Congreso Panamericano de Ingeniería de Tránsito y Transporte, Las Palmas de Gran Canaria, España, Septiembre 2006.

(C) Tesis

(C) Theses

C2. PhD

Multimodal pricing and the optimal design of bus services: New elements and extensions.

Supervisores: David Hensher, John Rose

<http://ses.library.usyd.edu.au/handle/2123/8584>

C1. Magíster/MSc:

Estrategias de asignación de flota en un corredor de transporte público
(Fleet assignment strategies in a public transport corridor)

Supervisores: Cristián Cortés, Sergio Jara-Díaz.

http://www.cybertesis.cl/tesis/uchile/2007/tirachini_ah/sources/tirachini_ah.pdf

OTROS

2011

Premio Institute of Transport and Logistics Studies, a la excelencia en investigación en transporte o logística. The University of Sydney, 7 de Mayo 2011.

2010

Premio al mejor paper presentado en 31st Annual Conference of the Australian Institutes of Transport Research (CAITR), School of Business, Australian Defence Force Academy, University of New South Wales, Canberra, Australia, 28 de Septiembre de 2010.

2009

Premio *Michael Beesley* al mejor workshop paper presentado por una persona con menos de diez años de experiencia profesional, 11th International Conference on Competition and Ownership in Land Passenger Transport (Thredbo 11). Delft, Holanda, 24 de Septiembre 2009.

2008

Premio Colegio de Ingenieros de Chile al mejor ingeniero civil graduado en la Universidad de Chile el año 2007.

Mar 2006 – Ago 2008

Co-creador y editor del blog “Matadero Palma” (www.mataderopalma.blogspot.com), para la difusión y discusión de temas de transporte en Chile, con más de 50,000 visitas en ese período.

OTHERS

2011

The Institute of Transport and Logistics Studies Prize for research excellence in transport or logistics, The University of Sydney, 07 May 2011.

2010

Award to the best paper at 31st Annual Conference of the Australian Institutes of Transport Research (CAITR), School of Business, Australian Defence Force Academy, University of New South Wales, Canberra, Australia, 28 September 2010.

2009

Michael Beesley Award to the best workshop paper presented by an early career professional, 11th International Conference on Competition and Ownership in Land Passenger Transport (Thredbo 11). Delft, The Netherlands, 24 September 2009.

2008

Premio Colegio de Ingenieros de Chile (College of Engineers of Chile Prize) to the best new Civil Engineer graduated at Universidad de Chile in 2007.

Mar 2006 – Aug 2008

Co-creator and editor of blog “Matadero Palma” (www.mataderopalma.blogspot.com, in Spanish), a blog for the discussion of sustainable transport topics in Chile, with more than 50,000 visits in that period.

