

PRATEEK BANSAL

Email: pb422@cornell.edu • DOB: 26/04/1992 • Nationality: Indian
Google Scholar (H-index: 8, Citations: 732)

EDUCATION

Cornell University, USA

PhD, Transportation Engineering (Minor: Econometrics)

[Jan 16 – Aug 19]

Committee Chair: [Dr. Ricardo A. Daziano](#)

GPA: 4.0/4.0

The University of Texas at Austin, USA

MS, Transportation Engineering

[2013-15]

Portfolio, Applied Statistical Modeling

[2013-14]

Committee Chair: [Prof. Kara M. Kockelman](#)

GPA: 4.0/4.0

Indian Institute of Technology (IIT), Delhi

BTech, Civil Engineering

[2008-13]

Committee Chair: [Prof. Geetam Tiwari](#)

GPA: 8.5/10

KEY JOURNAL ARTICLES (Total: 13; first author: 11; first co-author*: 1; IF: five-year impact factor)

1. **Bansal, Prateek**, Ricardo Hurtubia, Alejandro Tirachini, and Ricardo A. Daziano. "Flexible estimates of heterogeneity in crowding valuation in the New York City subway." *Journal of Choice Modelling* 31(2019): 124-140. [IF: 2.2]
[*Interdisciplinary Choice Workshop* 2018, Santiago, Chile.]
2. **Bansal, Prateek**, Ricardo A. Daziano, and Naveen Sunder. "Arriving at a decision: A semi-parametric approach to institutional birth choice in India." *Journal of Choice Modelling* 31(2019): 86-103. [IF: 2.2]
[*Interdisciplinary Choice Workshop* 2018, Santiago, Chile.]
3. Liu, Yang*, **Prateek Bansal***, Ricardo Daziano, and Samitha Samaranyake. "A framework to integrate mode choice in the design of mobility-on-demand systems." *Transportation Research Part C: Emerging Technologies* 105(2019): 648-665. [IF: 6.1]
[*15th International conference on Travel Behavior Research* 2018, Santa Barbara, California.]
4. **Bansal, Prateek**, Ricardo A. Daziano, and Erick Guerra. "Minorization-Maximization (MM) algorithms for semiparametric logit models: Bottlenecks, extensions, and comparisons." *Transportation Research Part B: Methodological* 115(2018): 17-40 [IF: 5.3]
[*15th International conference on Travel Behavior Research* 2018, Santa Barbara, California.]
5. **Bansal, Prateek**, Kara M. Kockelman, Will Schievelbein, and Scott Schauer-West. "Indian vehicle ownership and travel behaviour: A case study of Bengaluru, Delhi and Kolkata." *Research in Transportation Economics* 71(2018): 2-8. [IF: 2.2]
[*96th Annual Meeting of Transportation Research Board* 2017, Washington DC, USA.]
6. **Bansal, Prateek**, Ricardo A. Daziano, and Martin Achtnicht. "Extending the logit-mixed logit model for a combination of random and fixed parameters." *Journal of Choice Modelling* 27(2018): 88-96. [IF: 2.2]
[1) *6th International Conference on Choice Modelling* 2017, Cape Town, South Africa; 2) *37th International Symposium on Forecasting* 2017, Cairns, Australia; 3) *96th Annual Meeting of Transportation Research Board* 2017, Washington DC, USA.]
7. **Bansal, Prateek**, Ricardo A. Daziano, and Martin Achtnicht. "Comparison of parametric and semiparametric representations of unobserved preference heterogeneity in logit models." *Journal of Choice Modelling* 27(2018): 97-113. [IF: 2.2]
[*6th International Conference on Choice Modelling* 2017, Cape Town, South Africa]
8. **Bansal, Prateek**, Rohan Shah, and Stephen D. Boyles. "Robust network pricing and system optimization under combined long-term stochasticity and elasticity of travel demand." *Transportation* 45(2018): 1389-1418. [IF: 3.4]
[*94th Annual Meeting of Transportation Research Board* 2015, Washington DC, USA.]
9. **Bansal, Prateek**, and Kara M. Kockelman. "Are we ready to embrace connected and self-driving vehicles? A case study of Texans." *Transportation* 45, no. 2 (2018): 641-675. [IF: 3.4]
[*96th Annual Meeting of Transportation Research Board* 2017, Washington DC, USA.]
10. **Bansal, Prateek**, and Kara M. Kockelman. "Forecasting Americans' long-term adoption of connected and autonomous vehicle technologies." *Transportation Research Part A: Policy and Practice* 95(2017): 49-63. [3rd most cited article since 2016, IF: 4.4]
[1) *95th Annual Meeting of Transportation Research Board* 2016, Washington DC, USA; 2) *36th International Symposium on Forecasting* 2017, Santander, Spain; 3) *14th International conference on Travel Behavior Research* 2015, Windsor, UK]
11. **Bansal, Prateek**, Kara M. Kockelman, and Amit Singh. "Assessing public opinions of new vehicle technologies: An Austin perspective." *Transportation Research Part C: Emerging Technologies* 67(2016): 1-14 [2nd most cited article since 2016, IF: 6.1]
[*95th Annual Meeting of Transportation Research Board* 2016, Washington DC, USA.]
12. **Bansal, Prateek**, Kara M. Kockelman, and Yiyi Wang. "Hybrid electric vehicle ownership and fuel economy across Texas: an application of spatial models." *Transportation Research Record* 2495(2015): 53-64. [IF: 1.0]
[*94th Annual Meeting of Transportation Research Board* 2015, Washington DC, USA.]
13. Fagnant, Daniel J., Kara M. Kockelman, and **Prateek Bansal**. "Operations of a shared autonomous vehicle fleet for the Austin, Texas market." *Transportation Research Record* 2536(2015): 98-106. [IF: 1.0]

ARTICLES (REVISED & SUBMITTED)

1. **Bansal, Prateek***, Rico Krueger*, Michel Bierlaire, Ricardo A. Daziano, and Taha H. Rashidi. "Bayesian estimation of mixed multinomial logit models: Advances & simulation-based evaluations." *Transportation Research Part B: Methodological* [IF: 5.3] [7th International Conference on Choice Modelling 2019, Kobe, Japan.]
2. Dubey, Subodh*, **Prateek Bansal***, Ricardo A. Daziano, and Erick Guerra. "A generalized continuous-multinomial response model with a t-distributed error kernel." *Transportation Research Part B: Methodological*. [IF: 5.3]
3. **Bansal, Prateek**, Akanksha Sinha, Rubal Dua, and Ricardo Daziano. "Eliciting preferences of ridehailing users and drivers: evidence from the United States." *Travel Behaviour and Society*. [IF: 3.3]
4. **Bansal, Prateek***, Yang Liu*, Ricardo Daziano, and Samitha Samaranyake. "Can Mobility-on-Demand services do better after discerning reliability preferences of riders." *Transportation letters*. [Fun activity, IF:0.7]
[International Conference on Demand Responsive and Innovative Transportation Services 2019, Baltimore, USA.]

OTHER ARTICLES AND POLICY REPORTS

1. **Bansal, Prateek**, Vahid Keshavarzadeh, Angelo Guevara, and Ricardo A. Daziano. "Designed quadrature to approximate integrals in maximum simulated likelihood estimation." *98th Annual Meeting of TRB* 2019.
2. Krueger, Rico, **Prateek Bansal**, Michel Bierlaire, Ricardo A. Daziano, and Taha H. Rashidi. "Variational Bayesian inference for mixed logit models with unobserved inter-and intra-individual heterogeneity." *19th Swiss Transport Research Conference* 2019.
3. **Bansal, Prateek**, and Ricardo A. Daziano. "Influence of choice experiment designs on eliciting preferences for autonomous vehicles." *Transportation Research Procedia* 32 (2018): 474-481.
4. **Bansal, Prateek**, and Kara M. Kockelman. "Indian vehicle ownership: insights from literature review, expert interviews, and state-level model." *Journal of the Transportation Research Forum* 56 (2017).
5. Kockelman, Kara ... **Prateek Bansal** et al. "An assessment of autonomous vehicles: traffic impacts and infrastructure needs." *Texas Department of Transportation 2017(FHWA/TX-17/0-6847-1)*.
6. Kockelman, Kara, Paul Avery, and **Prateek Bansal** et al. "Implications of connected and automated vehicles on the safety and operations of roadway networks." *Texas Department of Transportation 2016(FHWA/TX-16/0-6849-1)*.
7. Kockelman, Kara ... **Prateek Bansal** et al. "Bringing smart transportation to Texas: ensuring the benefits of a connected and autonomous transport system in Texas." *Texas Department of Transportation 2016(FHWA/TX-16/0-6838-2)*.
8. **Bansal, Prateek**, Mu-Chen Chen, and Chun-Chin Hsu. *A freeway travel time prediction and feature selection model integrating principal component analysis and neural networks*. *94th Annual Meeting of TRB* 2015.
9. **Bansal, Prateek**, Rishabh Agrawal, and Geetam Tiwari. "Impacts of bus-stops on the speed of motorized vehicles under heterogeneous traffic conditions." *International Journal of Transportation Science and Technology* 3(2014): 167-178.

VISITING RESEARCHER

| | |
|--|---------------------|
| Universidad de Chile, Santiago, Chile (Host: Prof. C. Angelo Guevara & Prof. Alejandro Tirachini) | [June 18 - Aug 18] |
| Title: New quadrature-based methods to approximate the Monte Carlo Integration. | |
| University of California, Berkeley, USA (Host: Prof. Joan Walker, Exchange Scholar Abroad Program) | [Jan 18 - May 18] |
| Title: Developing variational Bayes estimator for the random parameter choice model. | |
| Stellenbosch University, South Africa (Host: Dr. SJ Andersen) | [Sept 15 - Oct 15] |
| Title: Traffic state estimation using vehicle loop detector data and GPS data. | |
| Chalmers University of Technology, Sweden (Host: Prof. Balazs Kulscar) | [June 13 - July 13] |
| Title: MATLAB-Vissim interface to streamline the implementation of traffic control strategies | |
| University of Montreal, Canada (Host: Prof. Robert Chapleau) | [July 12 - Nov 12] |
| Title: Micro-simulation of Montreal's subway in TRANSIMS using General Transit Feed Specification data. | |
| National Chiao Tung University, Taiwan (Host: Prof. Mu-Chen Chen) | [May 12 - June 12] |
| Title: Developing freeway travel time prediction models using artificial intelligence techniques. | |

ACADEMIC HONORS AND FELLOWSHIPS

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|---|----------------|
| Lee Schipper Memorial Scholarship for Sustainable Transport and Energy (<i>Honorable Mention</i>). | [2017] |
| David Bruton Graduate Fellowship - Recognition for an exceptional academic performance, UT Austin. | [\$1000, 2015] |
| Texas ITE Scholarship - For scholastic achievements and graduate research contributions in Transportation. | [\$1500, 2015] |
| Abhinav Dhupar Memorial Award - The most distinguished graduating student, Class of 2013, IIT Delhi. | [\$150, 2013] |
| 32nd Scholars Abroad Program Award - Awarded to top10 Indian graduate students studying abroad. | [\$1500, 2013] |
| Summer Undergraduate Research Award - For a research contribution in improving public transit, IIT Delhi. | [\$150, 2010] |
| Regional Mathematical Olympiad - Secured fourth rank in Rajasthan State, India. | [2007] |

TRAVEL AWARDS

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| Research Travel Grant, Cornell University – For a research visit to the Universidad de Chile, Santiago. | [\$2000, 2018] |
| Student Fellowship – To present at the Interdisciplinary Choice Workshop (ICW), Santiago, Chile. | [\$500, 2018] |
| Travel award, University of Toronto – To participate in the Fields Medal Symposium, Toronto, Canada. | [\$2000, 2018] |
| KAPSARC Travel Award – Invited delegate for energy workshops, Washington DC & Riyadh, Saudi Arabia. | [\$1500, 2017] |
| International Institute of Forecasters Travel Award – To present at ISF Santander, Spain & Cairns, Australia. | [\$4500, 2016-17] |
| Society of Industrial and Applied Mathematics Travel Grant - To present at 8 th ICIAM, China. | [\$2000, 2015] |
| National Science Foundation Travel Award: | |
| Fifteenth International Conference on Approximation Theory, San Antonio, USA. | [\$600, 2016] |
| Fourteenth Latin American Congress of Probability and Mathematical Statistics, Costa Rica. | [\$800, 2016] |
| Fifteenth International Congress on Mathematical Physics, Santiago de Chile. | [\$2000, 2015] |
| Fifth Underrepresented Students in Topology and Algebra Research Symposium, Florida, USA. | [\$500, 2015] |
| Thirteenth Latin American Congress of Probability and Mathematical Statistics, Colombia. | [\$2000, 2014] |
| Fourth Underrepresented Students in Topology and Algebra Research Symposium, UC Berkeley, USA. | [\$500, 2014] |
| Thirty ninth lecture series on Multiparameter Geometry and Analysis, University of Arkansas, USA. | [\$500, 2014] |
| Graduate Professional Development Award, UT Austin – To present at the 21 st ITS World Congress. | [\$600, 2014] |
| International Statistical Institute - World Bank Award – To present at the 16 th ISBIS, Duke University. | [\$1500, 2014] |
| Sir Ratan Tata Trust Travel Award – To travel from home country to graduate school. | [\$1000, 2013] |
| Tatachem Golden Jubilee Foundation Award – For a research visit to Chalmers University of Technology. | [\$500, 2013] |
| Pearl Award, IIT Delhi Alumni Association – To present a paper at technical festival of IIT Kharagpur. | [\$200, 2011] |

REVIEWING SERVICE

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|--------------------------------|--------------------------------|---------------------------------------|
| Transportation Research Part A | Transportation Research Part F | Transport Policy |
| Transportation Research Part B | Safety Science | Journal of Transport Geography |
| Transportation Research Part C | Transport Review | Journal of Choice Modelling |
| Transportation Research Part D | Transportation | Transportmetrica A: Transport Science |

TEACHING EXPERIENCE (Spent approximately 20 hours per week on teaching duties during graduate school)

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|---|-----------|
| Graduate course for Economics and Marketing majors: Micro-econometrics of Discrete Choice , Cornell University. | [2016,18] |
| Graduate course for Chemical Engineering and Policy majors: Transport Energy System , Cornell University. | [2018] |
| Undergraduate course for Engineering major: Engineering Economics and Management , Cornell University. | [2017,19] |
| Undergraduate course for Statistics major: Introduction to Probability and Statistics , University of Texas at Austin. | [2015] |

SUPERVISION EXPERIENCE

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|---|-------------|
| Ms Zelenny Lozano , Undergraduate Thesis, University of Texas at Austin (Joint supervision with <i>Prof. Kara Kockelman</i>). | [2014-2015] |
| Ms Akanksha Sinha , Master's Thesis, Cornell University (Joint Supervision with <i>Prof. Ricardo Daziano</i>). | [2018-2019] |

COLLABORATORS (Co-authors on published/R&R journal articles in the last 5 years, except thesis/dissertation supervisors)

Dr. Michel Bierlaire, Professor, Transport and Mobility Laboratory, EPFL, Switzerland.
Dr. Alejandro Tirachini, Associate Professor, Department of Civil Engineering, Universidad de Chile.
Dr. C. Angelo Guevara, Associate Professor, Department of Civil Engineering, Universidad de Chile.
Dr. Taha Hossein Rashidi, Associate Professor, Civil & Environmental Engineering, UNSW, Australia.
Dr. Erick Guerra, Associate Professor of City and Regional Planning, University of Pennsylvania, USA.
Dr. Stephen Boyles, Associate Professor, Civil Engineering, University of Texas at Austin USA.
Dr. Yiyi Wang, Assistant Professor, Department of Civil Engineering, Montana State University, USA.
Dr. Michael Levin, Assistant Professor of Civil, Environmental, and Geo- Engineering, University of Minnesota, USA.
Dr. Ricardo Hurtubia, Assistant Professor, School of Architecture Pontificia Universidad Católica de Chile.
Dr. Samitha Samaranyake, Assistant Professor, School of Civil and Environmental Engineering, Cornell University, USA.
Dr. Naveen Sunder, Postdoctoral Fellow, Harvard T.H. Chan School of Public Health, USA.
Dr. Martin Achtnicht, Postdoctoral Fellow, Leibniz Institute of Ecological Urban and Regional Development, Germany.
Dr. Rubal Dua, Research Fellow, King Abdullah Petroleum Studies and Research Center (KAPSARC), Saudi Arabia.
Dr. Vahid Keshavarzzadeh, Postdoctoral Fellow, Scientific Computing and Imaging Institute, University of Utah, USA.
Dr. Dan Fagnant, Senior AI Scientist, General Motors, USA.
Dr. Yang Liu, Software Developer, Facebook, USA.
Suboh Dubey, PhD Student, Department of Transport and Planning, TU Delft.
Rohan Shah, Transportation Analyst, CDM Smith, USA.
Rico Krueger, PhD Candidate, Civil & Environmental Engineering, UNSW, Australia.

RELEVANT COURSEWORK

MS: Stochastic Processes, Computational Economics, MS Sequence in Statistics, Linear Programming, Advanced Network Analysis.

PhD: Real Analysis, PhD Sequence in Econometrics, Discrete Choice Analysis, Bayesian Machine Learning, Statistical Computing.

PROFESSIONAL AFFILIATIONS

Member, International Institute of Forecasters (IIF)

Member, International Statistical Institute (ISI)

Student member, International Society for Business and Industrial Statistics (ISBIS)

REFEREES

Dr. Ricardo Daziano

Associate Professor

Civil and Environmental Engineering

Cornell University

Web: <http://daziano.cee.cornell.edu/>

Email: daziano@cornell.edu

Dr. Kenneth Train

Adjunct Professor (Emeritus)

Department of Economics

University of California, Berkeley

Web: <https://eml.berkeley.edu/~train/index.html>

Email: train@econ.berkeley.edu

Dr. Thomas DiCiccio

Associate Professor

Department of Statistical Sciences

Cornell University

Web: <https://stat.cornell.edu/people/faculty/thomas-diccio>

Email: tjd9@cornell.edu

Dr. Kara Kockelman

Professor

Civil, Architectural and Environmental Engineering

The University of Texas at Austin

Web: <https://www.cae.utexas.edu/prof/kockelman/>

Email: kkockelm@mail.utexas.edu

Dr. Shanjun Li

Associate Professor

Dyson School of Applied Economics and Management

Cornell University

Web: <http://li.dyson.cornell.edu/>

Email: sj2448@cornell.edu

Dr. Stephen Boyles

Associate Professor

Civil, Architectural and Environmental Engineering

The University of Texas at Austin

Web: <https://sboyles.github.io/>

Email: sboyles@austin.utexas.edu
