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Education

2021 PhD in Statistics, Pontificia Universidad Católica de Chile, Santiago, Chile.
2012 MSc in Applied Statistics, Universidad de Concepción, Concepción, Chile.
2009 Teaching degree in Math and Computer Sciences, Universidad Católica del Maule, Talca, Chile.

Academic Appointments

Currently Part-Time Lecturer, Department of Statistics, Pontificia Universidad Católica de Chile.
Since 2018 Teaching Assistant, Department of Statistics, Pontificia Universidad Católica de Chile.
II-2016 Lecturer, Faculty of Basic Sciences, Universidad Católica del Maule.
2011 – I-2016 Part-Time Lecturer, Faculty of Basic Sciences, Universidad Católica del Maule.
2012 – 2016 Part-Time Lecturer, Institute of Mathematics and Physics, Universidad de Talca.

Teaching

Pontificia Universidad Católica de Chile

Graduate level

- Exploratory and Computational Methods for Statistics (I-2019, I-2021), Advanced Statistical Methods III (I-2019), Advanced Statistical Methods II (II-2018). (Teaching Assistant) in *PhD degree, Statistics*.

Undergraduate level

- Statistical Software (I-2021), Psychometric (II-2021), in *Statistics program*.
- Statistics and Probability (II-2021), in *Political Science Program*.
- Statistics for Chemistry and Pharmacy (I-2021). In *Pharmaceutical Chemistry program*.
- Introduction to Data Management and Exploration (I-2021), (Computational Laboratory) in *Statistics program*.
- Biostatistics (I-2020), Statistical Methods (II-2019). (Teaching Assistant) in *Statistics program*.

Universidad de Talca

- Statistics and probability (I-2012 to II-2016) in *Undergraduate level, Civil Engineering*.
- Statistical Analysis (I-2016) in *Undergraduate level, Psychology*.
- Statistical quality control (II-2015, I-2016) in *Undergraduate level, Industrial Civil Engineering*.
- Statistics I (I-2014), Statistics II (I-2014) in *Undergraduate level, Public Accountant and Auditor*.

Universidad Católica del Maule

Graduate level

- Data processing and random games (2014, 2015, 2016), Probability Models (2015, 2016) in *MSc degree, Didactic of Mathematics*.
- Biostatistics (II-2015), Advanced Biostatistics (I-2016) in *MSc degree, Nursing*.
- Fundamentals of Statistics (II-2014, 2015) in *MSc degree, Education*.

Undergraduate level

- Didactic of Statistics (II-2016), Statistics I (II-2016) in *Teaching in Maths and Computer Sciences program*.
- Biostatistics (II-2011, I-2012) in *Nutritionist program*.
- Linear regression analysis (I-2011), Statistics and experimental designs (II-2011) in *Forest Engineering program*.

Fellowships

- 2020 ANID, *Doctoral Internship in Umeå University, Sweden*. Chilean Government.
- 2020 ANID, *Doctoral Internship in Cornell University, USA*. Chilean Government.
- 2018 CONICYT, *Beca Doctorado Nacional, año 2018*. Chilean Government, PhD Scholarship.
- 2017 Vicerrectoría de Investigación, Pontificia Universidad Católica de Chile. *Teaching Assistant*. PhD Scholarship.
- 2010 Graduate School, Universidad de Concepción. *Beca de estipendio y Beca de exención de matrícula*. MSc Scholarship.

Publications

- [1] Alarcón-Bustamante, E., San Martín, E. & González, J. (2021). On the marginal effect under partitioned populations: Definition and Interpretation. In Wiberg, M., Molenaar, M., González, J., Böckenholt, U., and Kim, JS. (Eds.), *Quantitative Psychology: The 85th Annual Meeting of the Psychometric Society, Virtual*. Springer Proceedings in Mathematics & Statistics. DOI [10.1007/978-3-030-74772-5_15](https://doi.org/10.1007/978-3-030-74772-5_15)

- [2] Alarcón-Bustamante, E., San Martín, E. & González, J. (2020). Predictive validity under partial observability. In Wiberg, M., Molenaar, M., González, J., Böckenholt, U., and Kim, JS. (Eds.), *Quantitative Psychology. IMPS2019. Springer Proceedings in Mathematics & Statistics*, vol 322. Springer, Cham. DOI [10.1007/978-3-030-43469-4_11](https://doi.org/10.1007/978-3-030-43469-4_11)
- [3] Cornejo, J., Tapia, J., Guerra, F., Yáñez, M., Baettig, R., Guajardo, J., Alarcón, E. & Vidal, G. (2017). Variation in Copper Accumulation at the Tissue Level of Five Hybrid Poplars Subjected to Copper Stress. *Water Air and Soil Pollution*, 228:212. DOI [10.1007/s11270-017-3384-7](https://doi.org/10.1007/s11270-017-3384-7)
- [4] Vásquez, B. & Alarcón, E. (2016) Inclusión en universidades chilenas: del discurso a interacciones prácticas, políticas y culturales. *Pensamiento Educativo. Revista de Investigación Educativa Latinoamericana*, 53(2), 1-19. DOI [10.7764/PEL.53.2.2016.9](https://doi.org/10.7764/PEL.53.2.2016.9)

Selected oral presentations

- [1] *Marginal effect in selection tests: A partial identification approach*. (Virtual) International Meeting of the Psychometric Society. July, 2021.
- [2] *Global Marginal Effect: the total effect in partitioned populations*. XXXIII Jornadas de Matemática de la Zona Sur. Abril 20-24, 2021. Universidad de la Frontera, Temuco, Chile.
- [3] Alarcón-Bustamante, E. (2021, Feb) *Predictive Validity Under Partial Observability*. Paper selected for presentation at the International Objective Measurement Workshop (IOMW) Conference, Berkeley, CA. <https://www.iomw.org/>.
- [4] *Ignorabilidad o no Ignorabilidad... esa es la cuestión*. 16° aniversario de la carrera de Pedagogía en Matemática y Computación, Universidad Católica del Maule. Noviembre, 2020.
- [5] *New Insights on marginal effects*. (Virtual) International Meeting of the Psychometric Society. July, 2020.
- [6] *Partial identification in predictive validity of selection tests*. International Meeting of the Psychometric Society, Santiago, Chile. July, 2019.
- [7] *La inclusión en la universidad chilena, desde el discurso hacia las interacciones*. Cuarto congreso interdisciplinario de investigación en Educación, Santiago, Chile. Agosto, 2017.
- [8] *Datos, azar y probabilidades en el ayer, hoy y siempre*. Primer seminario de Matemática para docentes de establecimientos PACE. Universidad Católica del Maule, Talca, Chile. Noviembre, 2016.

Academic Relevant Information

- Researcher associate LIES, [Interdisciplinary Laboratory of Social Statistics](#), since 2018.
- Secretary SOCHE, [Chilean Society of Statistics](#) , 2020-2021.
- Member of the Volunteer Team, International Meeting of the Psychometric Society, 2019.

Events Organiser

- [Ciclo de Coloquios “Ciencia, Política, Políticas Públicas: ¿Qué relaciones?”](#), LIES - UChile. Since

April, 2021.

- Symposium *Identification Problems in Empirical Research*, International Meeting of the Psychometric Society, 2021.
- [Ciclo de Minicursos 2020](#), SOCHE. October, 2020 - January, 2021.
- [1er Workshop \(virtual\) de estadística: Contribuciones de posgrado](#), SOCHE. August, 2020.
- [Conversatorios COVID-19](#), SOCHE. June - August, 2020.
- Symposium *Advanced topics in admission university tests*, International Meeting of the Psychometric Society, 2019.

Skills

- **Softwares:** R, SQL, SAS, SPSS, Minitab, Excel, \LaTeX .
- **Languages:** Spanish (native), English (intermediate).

Last updated: September, 2021