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Education

- 2021 PhD in Statistics, Pontificia Universidad Católica de Chile, Santiago, Chile.
Thesis: Modelling predictive validity problems: A partial identification approach.
- 2012 MSc in Applied Statistics, Universidad de Concepción, Concepción, Chile.
- 2009 Teaching degree in Math and Computer Sciences, Universidad Católica del Maule, Talca, Chile.
Thesis: Estilos y estrategias de aprendizaje en estudiantes de primer año de Pedagogía en Matemática UCM y su relación con los ramos de eje principal.

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), in *Statistics 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

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

Publications

- [1] Alarcón-Bustamante, E., San Martín, E. & González, J. (in press). 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.

- [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: June, 2021