

Pedro Izquierdo Lehmann

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Applied Mathematics and Statistics
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EDUCATION

Ph.D. Applied Mathematics and Statistics 2023–now
Johns Hopkins University, Baltimore, MD, United States.
Advisor: Mateo Díaz

M.S. Electrical Engineering 2021
Universidad Católica de Chile, Santiago, Chile.
Advisor: Carlos Sing-Long
Dissertation: Maximizing the Psychoacoustic Sweet Spot

B.S. Mathematical and Computational Engineering 2019
Universidad Católica de Chile, Santiago, Chile.
Minor in Computer-Based Music

JOURNAL PUBLICATIONS

Active set identification and rapid convergence for degenerate primal-dual problems –
(with M. Diaz, H. Lu, J. Yang.)
Manuscript in preparation.

Towards Maximizing a Perceptual Sweet Spot for Spatial Audio with Loudspeakers 2022
(with C. A. Sing Long, R. Cádiz.)
IEEE Transactions on Audio, Speech, and Language Processing.

CONFERENCE PROCEEDINGS

Exact Classification of NMR Spectra from NMR Signals 2024
(with C. A. Sing Long, M. Andía, A. Xavier.)
International Conference on Acoustics, Speech, and Signal Processing.

Classifying Healthy v/s NAFLD Mice from Liver Fatty Acids' H-MRS at 9.4 Tesla 2022
(with C. A. Sing Long, M. Andía, A. Xavier.)
Joint Annual Meeting ISMRM-ESMRMB.

Towards Maximizing a Perceptual Sweet Spot in a Reverberating Room 2022
(with C. A. Sing Long, R. Cádiz.)
AES 4th Conference on Audio for Virtual and Augmented Reality.

WORK EXPERIENCE

Millenium Institute iHealth (Santiago, Chile) Jan 2022 – Sep 2023
Research Assistant. Hosts: M. Andía, C. Sing Long.

Millenium Institute Data Fundamentals (Santiago, Chile) Aug 2020 – Dec 2020
Software Engineer Intern. Manager: Jazmine Maldonado.

AWARDS AND HONORS

Harriet H. Cohen Engineering Fellowship 2023
Whiting School of Engineering, Johns Hopkins University.

	Maximum Distintion M.S. Thesis Award <i>School of Engineering, Universidad Católica de Chile.</i>	2021
	Valedictorian Award <i>Mathematical and Computational Engineering Institute, Universidad Católica de Chile.</i>	2019
	Honor Fellowship <i>School of Engineering, Universidad Católica de Chile.</i>	2014
PRESENTATIONS	Statistics and Data Science Workshop , Bogotá, Colombia. <i>Poster.</i>	Dec 2025
	Optimization Workshop: Theory, Algorithms, and Applications , Bogotá, Colombia. <i>Poster.</i>	Dec 2024
	SIAM Conference on Mathematics of Data Science , Atlanta, GA, United States. <i>Poster.</i>	Oct 2024
	International Conference on Acoustics, Speech, and Signal Processing , Seoul, South Korea. <i>Poster.</i>	Apr 2024
	Jr. MINDS Seminar , Johns Hopkins University. <i>Talk.</i>	Apr 2024
	Applied Mathematics and Statistics Student Seminar , Johns Hopkins University. <i>Talk.</i>	Nov 2023
	Sound Department Seminar , Universidad de Chile. <i>Talk.</i>	Aug 2022
	AES 4th International Conference on Audio for Virtual and Augmented Reality , Redmond, WA, United States. <i>Talk.</i>	Aug 2022
	Joint Annual Meeting ISMRM-ESMRMB , London, England. <i>Talk.</i>	Aug 2022
	M.S. Defense , Universidad Católica de Chile. <i>Talk.</i>	Jan 2022
TEACHING	AMS 747 Mathematics of Data Science , Johns Hopkins University. <i>Teaching Assistant.</i>	Fall 2025
	AMS 730 Statistical Theory I , Johns Hopkins Univeristy. <i>Teaching Assistant.</i>	Fall 2025
	Introduction to Statistics for AMS Masters , Johns Hopkins Univeristy. <i>Instructor.</i>	Summer 2025
	AMS 762 Nonlinear Optimization II , Johns Hopkins Univeristy. <i>Teaching Assistant.</i>	Spring 2025
	AMS 761 Nonlinear Optimization I , Johns Hopkins Univeristy. <i>Teaching Assistant.</i>	Fall 2024
	IMT 3150 Convex Optimization , Universidad Católica de Chile. <i>Teaching Assistant.</i>	Spring 2021
	IMT 2113 Fourier Analysis , Universidad Católica de Chile. <i>Teaching Assitant.</i>	Fall 2020
SERVICE	Jr MINDS Seminar Coordinator , Johns Hopkins University.	Fall 2024