Jonathan Lozano de la Parra, Ph.D.

September 3rd, 1993, Ensenada, Mexico

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Employment History

Oct 2024 – **Present** AI Consultant at Scale AI.

Job description: I manage projects on training state-of-the-art LLMs, applying my physics and math expertise to optimize models, improve training methods, and solve complex AI challenges.

Jan 2023 - Present

Adjunct Professor of Physics, Autonomous University of Baja California at the Faculty of Sciences.

Job description: Lecturer of sciences with focus on the theoretical aspects of modern physics.

Apr 2018 – Sep 2022

Instructor of Physics, University of Bonn at the Helmholtz Institute for Radiation and Nuclear Physics.

Job description: Tutor in advanced physics topics. Main lectures: Quantum Field Theory, General Relativity and Theoretical Hadron Physics.

Education

Jan 2019 – Apr 2023

Doctor of Science, University of Bonn at the Helmholtz Institute for Radiation and Nuclear Physics.

Thesis title: *Hadrons in a Finite Volume and in a Background Field.* Advisors: PD Dr. Akaki Rusetsky, Prof. Dr. Ulf-G. Meißner.

Oct 2016 - Nov 2018

Master of Science, University of Bonn at the Helmholtz Institute for Radiation and Nuclear Physics.

Thesis title: *Nucleon Compton Scattering in a Finite Volume*. Advisors: PD Dr. Akaki Rusetsky, Prof. Dr. Ulf-G. Meißner.

Aug 2011 - Apr 2016

B.Sc. in Physics, Autonomous University of Baja California at the Faculty of Sciences.

Thesis title: Metricless Gravity.

Advisors: Dr. Carlos Yee, Dr. Miguel Sabido.

Skills

Languages

Strong reading, writing and speaking competencies for Spanish, English and German.

Coding

Python and LaTeX.

Misc.

Time management, leadership, teamwork, decision making, communication, problem solving, academic research, teaching.

Research Publications

Journal Articles

J. Lozano, U.-G. Meißner, F. Romero-López, A. Rusetsky, and G. Schierholz, "Resonance form factors from finite-volume correlation functions with the external field method," *JHEP*, vol. 10, p. 106, 2022.
Ø DOI: 10.1007/JHEP10(2022)106. arXiv: 2205.11316 [hep-lat].

J. Lozano, A. Agadjanov, J. Gegelia, U.-G. Meißner, and A. Rusetsky, "Finite volume corrections to forward Compton scattering off the nucleon," *Phys. Rev. D*, vol. 103, no. 3, p. 034 507, 2021. ODI: 10.1103/PhysRevD.103.034507. arXiv: 2010.10917 [hep-lat].

Conference Proceedings

J. L. de la Parra, "Finite volume corrections to forward Compton scattering off the nucleon," vol. LATTICE2021, 2022, p. 307. ODI: 10.22323/1.396.0307.

Miscellaneous Experience

Teaching Experience

Jan - Jul 2025 **General Relativity**.

Tensors and Special Relativity.

Aug - Dec 2024 Classical Mechanics.

Quantum Field Theory.

Tensors and Special Relativity.

Jan - Jul 2024 | Classical Mechanics.

General Relativity.

Vector Calculus.

Tensors and Special Relativity.

Aug - Dec 2023 Quantum Field Theory.

General Relativity.

Vector Geometry.

Tensors and Special Relativity.

Jan - Jul 2023 **Tensors and Special Relativity**.

Awards and Achievements

Jan 2024 - Dec 2027 Sistema Nacional de Investigadoras e Investigadores - Candidato.

Jul 2016 CONACYT-DAAD 2016 Grant.

Feb 2016 TOEFL iBT English Certificate

Jan 2014 **ECOS Santander Scholarship.**

Certification

Jun 2023 Learn Python 3 Course. Awarded by Codecademy.

Learn Intermediate Python 3 Course. Awarded by Codecademy.

Jul 2023 Analyze Data with Python. Awarded by Codecademy.

Visualize Data with Python. Awarded by Codecademy.

Learn Data Analysis with Pandas. Awarded by Codecademy.

Learn Statistics with NumPy. Awarded by Codecademy.

Miscellaneous Experience (continued)

Outreach

Aug 2010 - Present

Sociedad Científica Juvenil (SCJ). President and founder of the Youth Scientific Society (SCJ) in 2010. Served in that position for almost four years. SCJ is a science outreach group whose objective is to spread scientific and technological knowledge to the public through workshops, conferences, projects, and more. Currently, this group has over a dozen branches and hundreds of members throughout Mexico.