

# CURRICULUM VITAE



Valeria Paola  
MARDONEZ-BALDERRAMA



## EDUCATION

### PhD degree in

Air pollution in La Paz and El Alto, two high-altitude Bolivian cities

*Institut des Géosciences de l'Environnement (IGE)*

*Université Grenoble Alpes (UGA)*

*Grenoble, France*

*2019-2023*

### Master's degree in Physics

*Faculty of Pure and Natural Sciences, University Mayor de San Andrés (UMSA).*

*La Paz, Bolivia*

*2016-2019*

### Bachelor's degree in Physics

*Faculty of Pure and Natural Sciences, University Mayor de San Andrés (UMSA).*

*La Paz, Bolivia*

*2016-2019*

## LANGUAGES

Spanish (native language)

English (Level C1)

French (Level B2)

Portuguese (Level A2)

German (Level A1)

## PROFESSIONAL EXPERIENCE

### Associate Researcher at the Laboratory for Atmospheric Physics (LFA)

Collaborated on the final stage of La Paz Experiment Campaign (Data analysis, instruments and stations maintenance) in collaboration with the Leibnitz Institute for Tropospheric Research (TROPOS) and the Institut de Recherche pour le Développement (IRD)

*La Paz, Bolivia*

*November 2017 - September 2019*

Participated in the organization of the CORDEX Central America and South America Training: Workshop on Downscaling Techniques

*La Paz-Bolivia*

*June 2018*

### Research Guest at Institute for Tropospheric Research (TROPOS).

Worked on master thesis experiment: Enhancement of the particle light absorption due to coating of non-absorbing material.

*Leipzig, Germany*

*October 2016 - September 2017*

### Research Assistant at Laboratory for Atmospheric Physics (LFA-UMSA)

Project: GAW-CHACALTAYA Program.

Project: Climate Change and Atmospheric Composition.

Project: Ultraviolet Radiation Campaign.

*La Paz, Bolivia*

## COMPETENCES

Word/ Excel/ Power point

Coding in R

EPA PMF

Mendeley

Statistical data analysis

## PUBLICATIONS

Sierra, J. P., Junquas, C., Espinoza, J. C., Segura, H., Condom, T., Andrade, M., Molina-Carpio, J., Ticona, L., **Mardoñez, V.**, Blacutt, L., Polcher, J., Rabatel, A., & Sicart, J. E. (2022). Deforestation impacts on Amazon-Andes hydroclimatic connectivity. *Climate Dynamics*, 58(9–10), 2609–2636. <https://doi.org/10.1007/s00382-021-06025-y>

**Mardoñez, V.**, Pandolfi, M., Borlaza, L. J. S., Jaffrezo, J.-L., Alastuey, A., Besombes, J.-L., Moreno R., I., Perez, N., Močnik, G., Ginot, P., Krejci, R., Chrostny, V., Wiedensohler, A., Laj, P., Andrade, M., and Uzu, G.: Source apportionment study on particulate air pollution in two high-altitude Bolivian cities: La Paz and El Alto, Atmos. Chem. Phys. Discuss. [preprint], <https://doi.org/10.5194/acp-2022-780>, in review, 2022. (**Under review**)

**Mardoñez, V.**, Močnik G., Pandolfi M., Modini R., Velarde F., Renzi L., Marinoni A., Aliaga D., Bianchi F., Mohr C., Krejci R., Wiedensohler A., Uzu G., Andrade M., Laj P.: Long term measurements of atmospheric black carbon in two high-altitude Bolivian cities: deconvolving source-specific light absorption properties. (**In preparation**)

Borlaza, L. J. S., **Mardoñez, V.**, Marsal, A., Hough, I., Dinh Ngoc Thuy Vy, Andrade, M., Jaffrezo, J.L., Alastuey, A., Besombes, J. L., Močnik, G., Moreno, I., Velarde, F., Gardon, J., Comejo, A, Laj, P., and Uzu, G.: Oxidative potential of particulate matter and its association to respiratory health endpoints in high-altitude cities in Bolivia (**In preparation**)

Renzi L, Modini, R.L., **Mardoñez, V.**, Gysel, M., Laj, P., Andrade, M., Bianchi, F., Marinoni, A.: Characterization of rBC size distribution and mixing state in three different high-altitude environments in the Bolivian Andean region. (**In preparation**)

## WORKSHOPS, COURSES AND CONFERENCES

### Participated on the International Aerosol Conference (IAC)

Poster presentation: “PM<sub>10</sub> sources and their oxidative potential in two high altitude Bolivian cities”

Athens- Greece

September 2022

### Participated on the European Geosciences Union (EGU) General Assembly

Oral presentation: “Sources of particulate air pollution in two high altitude Bolivian cities: La Paz and El Alto”

Vienna- Austria

May 2022

### Participated on the V Training Course on Positive Matrix Factorization

Organized by the Institute of Environmental Assessment and Water Research (IDAEA)

Barcelona- Spain

February 2020

### Participated on the European Research Course on Atmospheres (ERCA)

Grenoble-France

January 2020

### Participated on the Sao Paulo School of Advanced Science on Atmospheric Aerosols

Poster presentation: “Enhancement of the particle light absorption due to coating of non-absorbing material”

Sao Paulo -Brazil

July 2019

Participated on the School of Atmospheric Measurements in Latin America and the Caribbean: Atmospheric Particles and Reactive Gases

Poster presentation: "Enhancement of the particle light absorption due to coating of non-absorbing material"

*San Juan – Puerto Rico November 2018*

Participated on the Latin American and Caribbean Aerosol Measurements School: from measurements technologies to applications, focused on Black Carbon.

Oral and poster presentation: Correlation between CO and BC measurements in Chacaltaya GAW-Station.

*La Paz-Bolivia June 2015*

Participated on the International School on Atmospheric Aerosol Physics, Measurement and Sampling.

Lecturer: Prof. Dr. Alfred Wiedensohler (Leibniz Institute for Tropospheric Research, TROPOS, Germany).

*La Paz-Bolivia June 2013*

Participated on the Course in Remote Sensing of Atmospheric Aerosols.

Lecturer: Dr. Daniel Pérez (Goddard Space Flight Center, NASA-USA).

*La Paz-Bolivia December 2012*

Participated on the Atmospheric Chemistry Course. Lecturer: Dr.

Paolo Laj (IGE-Université Joseph Fourier, France). *La Paz-Bolivia*

*November 2012*

Participated on the X Bolivian Course of Complex Systems (Acoustic Applications).

*La Paz-Bolivia October 2011*

Participated on the Training Course on LIDAR Measurements in Latin America

*La Paz-Bolivia September 2011*

Participated on the 6th Workshop on LIDAR Measurements in Latin America.

*La Paz-Bolivia September 2011*

## EXPERIENCE                      WORKING                      WITH ATM OSPHERIC    MONITORING INST RUMENTS

Carbon Monoxide (CO) analyzers – HORIBA (Maintenance)

Multi Angle Absorption Photometers (MAAP) – Thermo Fisher Scientific (Maintenance, data analysis)

Continuous Light Absorption Photometers (CLAP) – NOAA (Maintenance, data analysis)

Aethalometers AE33, AE31, AE51 – Aerosol (Maintenance, data analysis) Nephelometers – Aurora

(Maintenance, data analysis)

Aerosol Chemical Speciation Monitor (ACSM)- Aerodyne (Maintenance) Ozone (O<sub>3</sub>)

Analyzers – Thermo Fisher Scientific (Maintenance, data analysis)

Mobility Particle Size Spectrometer (MPSS) - TROPOS (Maintenance, data analysis) Condensation Particle Counter (CPC) - (Maintenance, data analysis)