

**LINA ESTHER RIVELLI ZEA**  
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## **EDUCATIONAL EXPERIENCE**

### **UIUC-USA**

#### **UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN**

*DAS*

*Department of Atmospheric Sciences*

2020- In progress PhD Degree Program in Atmospheric Sciences

August 2020 M. Sc. Degree in Atmospheric Sciences

- Advisor: Professor Stephen W. Nesbitt

### **INPE-Brazil**

#### **NATIONAL INSTITUTE FOR SPACE RESEARCH**

*CPTEC*

*Center for Weather Forecast and Climate Studies*

Mar 2015-July 2017 M. Sc. Degree Program in Meteorology

- Dissertation: **Thunderstorm Life Cycle Observation from Radar and Satellite**

- Advisor: Professor Luiz Augusto Toledo Machado

### **UCA-Paraguay**

#### **CATHOLIC UNIVERSITY “NUESTRA SENORA DE LA ASUNCION”**

*FCyT*

*School of Sciences and Technology*

2008-2013 Bachelor of Science in Civil Engineering (*not translate in English: Ingeniero Civil*)

2013

- Final Project: Identification of critical points and urban flood mitigation

- Advisor/Co-advisor: Roger Monte Domecq/Julián Báez Benitez

*FFCH*

*School of Philosophy and Human Sciences*

2014

Graduate Program of Specialization in Teaching in Higher Education

- Curricula: 360 hours

## **PROFESSIONAL EXPERIENCE**

### **MOPC-Paraguay**

#### **MINISTRY OF PUBLIC WORKS AND COMMUNICATIONS**

*DAPSAN*

*IADB and AECID Water Program 2589/BL-PR GTR/WS-12928-PR*

Jan 2013-Feb 2015

Experience: Technical for monitoring and evaluating water & sanitation projects

- Supervisor: Jorge Rubén Oyamada Kroug, IADB Leading Expert

## RESEARCH EXPERIENCE

### UIUC-USA

#### UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

*DAS*

Department of Atmospheric Sciences

2018-2019

Experience: Participation in RELAMPAGO-CACTI Field Campaign in Argentina

- Supervisor: Stephen W. Nesbitt, Principal Investigator

- Responsibilities: **Collect data of thunderstorms through radiosonde launches and the operation of DOW (Doppler-On-Wheels radar) and C-band radar from Colorado State University, Analysis of precipitation using disdrometer data**

### CSWR-USA

#### CENTER OF SEVERE WEATHER RESEARCH

2018

Experience: Participation in Phase 1 of GRAINEX Field Campaign in Nebraska

- Supervisor: Karen Kosiba, CSWR

- Responsibilities: **Collect data of boundary layer through radiosonde launches and the operation of DOW (Doppler-On-Wheels radar)**

### INPE-Brazil

*National Institute for Space Research*

2016

Experience: Collaboration between graduate students in work of the Remote Sensing of Atmosphere Research Group

- Supervisor: Luiz Augusto Toledo Machado, Researcher

- Responsibilities: **Graduate student in projects of the Division of Environmental Satellites**

### UCA-Paraguay

*CTA*

*Center of Applied Technology*

2012-2014

Experience: Junior Researcher in the Environmental Group

- Supervisor: Julián Báez Benitez, Professor

- Responsibilities: **Undergraduate student in Projects of Flood Early Warning System**

## TEACHING EXPERIENCE

### UCA-Paraguay

#### CATHOLIC UNIVERSITY "NUESTRA SENORA DE LA ASUNCION"

*FCyT*

*School of Sciences and Technology*

2010-2014

Experience: Internship for Teacher Assistant Training in Statics I

- Supervisor: Ruth Amada Martinesi Culzoni, Professor

- Responsibilities: **Teacher Assistant in classes of Statics I**

## CONFERENCES, WORKSHOPS, AND PUBLICATIONS

**Rivelli Zea, Lina**, Nesbitt, Stephen W., Ladino, Alfonso, Hardin, Joseph C., Varble, Adam. "Raindrop Size Spectrum in Deep Convective Regions of the Americas." *Atmosphere* 12.8 (2021): 979. <https://doi.org/10.3390/atmos12080979>

Nesbitt, Stephen W., **Rivelli-Zea, Lina**, et al. "Perspectives on deep convective updraft modes using multi-sensor remote sensing data from RELAMPAGO-CACTI." AGU Fall Meeting Abstracts. Vol. 2020. 2020.

**Rivelli-Zea Lina**, Nesbitt Stephen, Tokay Ali, Petersen, Walter. RELAMPAGO-CACTI Drop Size Distribution Observations and the Implications for Hydrologic Studies. RELAMPAGO-CACTI Data Analysis Workshop in Argentina and AGU Fall Meeting in San Francisco, U.S. Poster presentation. November and December, 2019.

**Rivelli-Zea Lina**, Machado Luiz, Mattos Enrique. Thunderstorms Life Cycle Observation: Satellite Multi-channel Model for Warning System. Midwest Student Conference on Atmospheric Research. Poster presentation. October, 2017.

Ferreira, R., Biscaro, T., Alves Junior, M.P., **Rivelli Zea, L.E.** "Multiple Radar Data Assimilation and Short-Range Precipitation Forecast of a Cold Front." 38th Conference on Radar Meteorology. AMS, 2017.

**Rivelli Lina**, Báez Julián, Monte Domecq Roger, López Moreira Gregorio, González Ruth. Identification of critical points and urban flood mitigation in Asunción City. Paraguayan Congresses of Water Resources by the Paraguayan Society of Water Resources. Oral presentation. August, 2015.

**Rivelli Zea Lina Esther**, Báez Julián, Monte Domecq Roger, López Moreira Gregorio, González Ruth. Identification of critical points and recommendations to mitigate floods impacts in Asuncion, Paraguay. XVIII CBMET - Brazilian Congress of Meteorology. Poster presentation. November, 2014.

López Moreira Gregorio, Takahashi Roberto, Báez Julián, **Rivelli Zea Lina Esther**, González Belén, Ovelar Juan. Statistical modeling of extreme rainfall in three cities of Paraguay through the application of Gumbel distribution. XVIII CBMET - Brazilian Congress of Meteorology. Poster presentation. November, 2014.

**Rivelli Zea Lina Esther**, González Ruth, López Moreira Gregorio Alejandro, Báez Julián, Beneti A. César. Application of remote sensing or preliminary identification of flooding areas in the metropolitan region of Asunción, Paraguay. XVII CBMET - Brazilian Congress of Meteorology. Poster presentation. September, 2012.

## SCHOLARSHIPS AND AWARDS

<b>BECAL-Paraguay</b>	<b>NATIONAL SCHOLARSHIP PROGRAM "DON CARLOS ANTONIO LOPEZ"</b>
2017-2021	Laspau-administrated PhD scholarship for graduate study in the United States
	Field of Study: PhD in Atmospheric Science
<b>WMO-Switzerland</b>	<b>WORLD METEOROLOGICAL ORGANIZATION Fellowship</b>
INPE-Brazil	Field of Study: M. Sc. in Meteorology
2015-2017	- Duration of Award: 17 Months
<b>UCA-Paraguay</b>	<b>CATHOLIC UNIVERSITY "NUESTRA SENORA DE LA ASUNCION"</b>
2014	Recognition for Research Work and University Extension
2014	Civil Engineering Student Diploma of Honor

**LINA ESTHER RIVELLI ZEA**  
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2013 Maximum Grade with Laude for Civil Engineering Degree Final Project

### **ADDITIONAL COURSE WORK**

<b>INPE-Brazil</b>	<b>NATIONAL INSTITUTE FOR SPACE RESEARCH</b>
2016	XV Meeting of Graduate Students in Meteorology of CPTEC/INPE - Curricula: 21 hours
2015	XIV Meeting of Graduate Students in Meteorology of CPTEC/INPE - Curricula: 21 hours
<b>INPE-Brazil</b>	<b>NATIONAL INSTITUTE FOR SPACE RESEARCH</b>
2015	Course "Application of Statistical Methods in Analysis of Meteorological Fields" - Curricula: 21 hours
<b>UCA-Paraguay</b>	<b>CATHOLIC UNIVERSITY "NUESTRA SENORA DE LA ASUNCION"</b>
<i>FCyT</i>	<i>School of Sciences and Technology</i>
2014	International Course of Management of Disaster Risk Reduction - Curricula: 160 hours
2011	Course "Geographic Information Systems with ArcGIS" for 16 hours curricula
<b>IDAB-Paraguay</b>	<b>INTER-AMERICAN DEVELOPMENT BANK</b>
<i>INDES</i>	<i>Inter-American Institute for Economic and Social Development</i>
2013	Certification of Project Management Leader after 4 weeks of training
<b>SIMEPAR-Brazil</b>	<b>SIMEPAR TECHNOLOGICAL INSTITUTE</b>
2012	Foreign Exchange Internship in Meteorology of 70 hours curricula - Supervisor: Cesar Augustus Beneti, Director
<b>USAID</b>	<b>United States Agency for International Development</b>
<i>AMCHAM</i>	<i>Paraguayan-American Chamber of Commerce Foundation</i>
2011	Training Program of Micro economy for entrepreneurs - Curricula: 160 hours

### **SKILLS**

*Atmospheric Sciences Field Work:* Good experience operating radar and launching radiosondes

*Programming:* Good experience with **IDL**, **Scilab**, and **Python**

*GIS Tools:* Good experience with **ArcGis** & **AutoCad**

*Others:* Good experience as a volunteer in local community activities

### **ADDITIONAL ACTIVITIES AND MEMBERSHIPS**

<b>USA</b>	<b>DEPARTMENT OF ATMOSPHERIC SCIENCES - UIUC</b>
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**LINA ESTHER RIVELLI ZEA**  
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2020-2019                      Treasurer for the Department of Atmospheric Sciences Students Association

**USA**                              **DAILY BREAD SOUP KITCHEN**

*Champaign, IL*                      Experience: Volunteer work in the Soup Kitchen once a month

2020-2019                      - Supervisor: Carlos Villanueva

**USA**                              **AMERICAN RED CROSS**

2020-2019                      Blood donor

**Brazil**                              **CENTER FOR WEATHER FORECAST AND CLIMATE STUDIES**

*Cachoeira Paulista-SP*              *Meeting of Graduate Students in Meteorology*

2016                              Experience: Student Member of the Organizing Committee

**Brazil**                              **ACRIDICON-CHUVA CAMPAIGN**

*Ilha Bela-SP*                      *Workshop on Aerosol-Cloud-Precipitation Interactions in Amazonia*

2016                              Experience: Student Member of the Organizing Committee

**Brazil**                              **CENTER FOR WEATHER FORECAST AND CLIMATE STUDIES**

*Campos de Jordão-SP*              *Meeting of Graduate Students in Meteorology*

2015                              Experience: Student Member of the Organizing Committee

**Paraguay**                              **CATHOLIC UNIVERSITY “NUESTRA SENORA DE LA ASUNCION”**

*Asunción-Central*                      *Workshop of Early Warning System Asunción Metropolitan Area*

2012                              Experience: Team and Student Member of the Organizing Committee

**Paraguay**                              **Asociación Latinoamericana de Control de Calidad, Patología y Recuperación de la Construcción (ALCONPAT)**

2010                              Experience: Vocal Member of the Directive Committee of ALCONPAT Paraguay

**Paraguay**                              **BANK OF FOOD FOUNDATION**

*Lambaré-Central*                      *National Annual Day of Food Donation*

2010-2014                      Experience: Responsible for a local of food donation in Lambaré