

## **Curriculum Vitae - Anthony Crespo, Ph.D. Student**

Department of Atmospheric and Oceanic Sciences, University of Wisconsin

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### **Education**

University of Wisconsin-Madison, Ph.D., Atmospheric and Oceanic Sciences, 2024 (expected)

University of Wisconsin-Madison, M.S., Atmospheric and Oceanic Sciences, 2020

Syracuse University, B.S., Earth Sciences, 2018

### **Research Experience**

#### **Atmospheric and Oceanic Science Department, UW-Madison, 2018 - 2020**

My M.S. project analyzed case studies of hail-producing convective storms events before and during the RELAMPAGO field campaign in central Argentina. I evaluated these cases through the analysis of satellite and radar data and through an experimental study of the hailstones collected and studied in a sub-zero lab under the direction of Dr. Lucia Arena in the Laboratory of Atmospheric Physics at the National University of Cordoba in Cordoba, Argentina. The results from the comparison between hail-producing cases gives us the motivation to look further at these different types of environments and cases that can produce hail in this region. Ultimately, the long-term goal is to better understand unique aspects of hail formation and challenges to hail forecasting in this region, especially given that these hail-producing systems formed in two different environments and were not well forecasted.

#### **Advanced Study Institute - Field Studies of Convection “RELAMPAGO”, 2018**

RELAMPAGO’s mission was to observe convective storms in the lee of the Andes Mountains in central Argentina that produce high impact weather yet are poorly represented by weather and climate models. The RELAMPAGO field campaign occurred November 1- December 15, 2018, concurrently with the 9-month U.S. Department of Energy CACTI project and included ground-based and airborne instrumentation platforms. Through my participation, I 1) worked with a diverse and international group of graduate students and scientists in a collaborative international research network between the U.S., Argentina, and Brazil to promote weather and climate research; 2) Studied curriculum focused on cloud and mesoscale processes of the atmosphere and professional/academic development topics; and 3) participated in outreach local K-12 school and organized cultural activities in Cordoba, Argentina.

#### **Heroy Geology Laboratory, Syracuse University, 2016-2018**

Experimental petrology with Professor Jay Thomas - studying the behavior of the fluid inclusions in dolomite and barite from the Devonian Marcellus Fm at Gates Rd, NY, to reconstruct depositional and diagenetic history.

### **Grants and Awards**

#### **Kinesis Foundation Scholar, 2014-present**

Granted to outstanding students who demonstrate financial need in completing undergraduate and graduate degrees in Puerto Rico and the U.S.

#### **Travel Award, University of Wisconsin, Madison, 2019**

Award to support master’s thesis field work in Cordoba, Argentina.

**Travel Award, Colorado State University**, October 30 – November 19, 2018

The NSF-sponsored International Research Experience for Students (IRES) Advance Study Institute – Field Studies of Convection in Argentina (ASI-FSCA), Cordoba, Argentina. PI: Kristen Rasmussen.

**L&S Community of Graduate Research Scholars Fellowship**, UW-Madison, 2018 - 2019

Advanced opportunity fellowship that is intended to support the recruitment and retention of highly qualified underrepresented graduate students in UW-Madison.

**Syracuse University Undergraduate Summer Research Grant**, 2016

Stipend awarded to undergraduate applicants to conduct research over the summer. Funds provided by the Syracuse University Student Association, the Provost's Office and the Office of Research at Syracuse University.

**Toyota Foundation Undergraduate Environmental Scholarship**, 2015-2018

Competitive scholarship given to Puerto Rican students majoring in environmental related studies.

### **Professional Development**

**SEA Semester (Woods Hole Research Center)**, 2016

Sea Education Association (SEA) is an internationally recognized leader in undergraduate ocean education giving undergraduate students tools to become environmentally literate leaders prepared to address environmental issues. I acquired sailing and research experience on the Transatlantic voyage from Las Palmas in the Canary Islands to St. Croix in the Caribbean. Class C-270, Oceans and Climate Program. I worked on my first unpublished project "Effects of pH, Temperature and pCO<sub>2</sub>, on Gelatinous Zooplankton Taxonomy and Biomass in the Tropical North Atlantic."

**The Storm Forecasting and Observation Program (SUNY Oswego)**, 2016

Acquired basic knowledge analyzing weather patterns and predicting changes by applying classroom lessons to the forecasting and observation of actual storms. The program is scheduled to coincide with the climatological peak for tornado occurrence in the United States.

### **Conferences and Presentations**

**Congreso Internacional de Cambio Climático (CCC)** July, 2019

Tormenta Granicera en la Provincia de Córdoba: Imágenes Satelitales

Tormenta Granicera en la Provincia de Córdoba: Imágenes de Radar

**Encuentro Interdisciplinario de Investigadores en Problemáticas Ambientales (EIDIPA)**

July, 2019