Rong-Yu Gu

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Address: 423 West 120th Street, Apt 58, New York, NY 10027, USA

EDUCATION

Ph.D. student in Earth and Environmental Engineering | Sep. 2021 – Present

Columbia University, NY, USA

Advisor: Dr. Pierre Gentine

Research interest: terrestrial carbon cycle, climate extreme, eco-hydro-climatology, land-atmosphere interactions

M.S. in Atmospheric Sciences | Sep. 2018 – June 2020

National Taiwan University, Taipei, Taiwan

Thesis: The uniqueness of the hydro-climatological cycle in Taiwan's montane cloud-fog forests

Advisor: Dr. Min-Hui Lo

Overall GPA: 4.14/4.3

B.S. in Atmospheric Sciences | Sep. 2014 – June 2018

National Taiwan University, Taipei, Taiwan

Thesis: Diurnal analyses of tree-fog-wind interactions in Chi-Lan Mountain

Advisor: Dr. Min-Hui Lo

Overall GPA: 3.51/4.3

PUBLICATION

R-Y Gu, M-H Lo, C-Y Liao, Y-S Jang, J-Y Juang, C-Y Huang, S-C Chang, C-I Hsieh, M-H Li, Y-Y Chen, HS Chu, KY Chang (2021). Early peak of latent heat fluxes regulates diurnal temperature range in Montane cloud forests. Journal of Hydrometeorology, 22(9), 2475-2487. https://doi.org/10.1175/JHM-D-21-0005.1

PROFESSIONAL EXPERIENCE

Teaching Assistant | Fall 2018, Spring 2019, Fall 2019, Fall 2023, Spring 2024

Environmental Data Analysis & Modeling (Course Instructor: Prof. Bolun Xu) | Spring 2024

Machine Learning for Environmental Engineering & Science (Course Instructor: Prof. Pierre Gentine) | Fall 2023

Land-Atmosphere Interactions (Course Instructor: Prof. Min-Hui Lo) | Fall 2019

Statistics with Meteorological Applications (Course Instructor: Prof. Min-Hui Lo) | Spring 2019

Fundamentals of English Writing (Course Instructor: Dr. Chen Chang) | Spring 2019

Atmospheric Measurement and Instrumentation (Course Instructor: Prof. Po-Hsiung Lin) | Fall 2018

Research Assistant | Aug 2020 – July 2021

Laboratory: HydroClimatology Group in the Department of Atmospheric Sciences, NTU

Recent Study: The impacts of solar radiation variability on water and carbon cycle in Taiwan's forests

Field work manager and assistant | Jan 2018 – July 2021

The setup and maintenance of sap flow measurement | Feb 2020 – July 2021

Directed by Dr. Min-Hui Lo and Dr. Kume Tomonori

The setup and maintenance of the time-lapse video and rain gauge | Jan 2018 – July 2021

"Yilan Experiment for Severe Rainfall" project: assist to release storm tracker | Nov 2020

PRESENTATIONS

International Conferences and Workshop

. Eastern Regional Dynamic Global Vegetation Modeling Conference, Woods Hole, MA, the United State | April 2024 | Oral

. National Center for Atmospheric Research Land Model and Biogeochemistry Working Group Meeting, Boulder, Colorado, the United State | March 2020 | Oral

> Title: Exploring the uniqueness of the hydro-climatological cycle in Taiwan's montane cloud-fog forests from observations and Community Land Model

. Workshop on Problems and Solutions to the Environmental Issues Facing the Southeast and East Asia under Changing Climate, Kyushu, Japan | Feb 2020

> Title: Taiwan's vulnerable montane cloud-fog forest and agricultural activities under climate change and human activities

. American Geophysical Union 2018 Fall Meeting, Washington D.C. and San Francisco, the United State | Dec 2018, Dec 2019, Dec 2022, Dec 2023 | Poster

> Title in 2023: Biomass loss caused by wind disturbances in Amazonia
> Title in 2022: A global synthesis of biomass loss due to wind disturbances during 2016-2018
> Title in 2019: The diurnal surface fluxes-atmosphere relations in Taiwan's montane cloud forest
> Title in 2018: The characteristics of high precipitation low evapotranspiration in Chi-Lan montane cloud forest in Taiwan

. 8th International Conference on Fog, Fog Collection and Dew, Taipei, Taiwan | July 2019 | Poster
> Title: The surface heat fluxes-atmosphere relations in Chi-Lan montane cloud forest in Taiwan

HONORS, AWARDS, AND FELLOWSHIPS

. Best Graduate Student Oral Presentation – Eastern Regional Dynamic Global Vegetation Modeling Conference | 2024

. Taiwan-Columbia Scholarship program (full funding for selected Ph.D. students) | 2021-2023

. Columbia University Engineering Graduate Student Council Professional Development Scholarship | 2022 Fall (1000 USD)

. Dean's Awards – College of Science, NTU (outstanding master thesis) | 2020

. Outstanding Poster Awards – Taiwan Geosciences Assembly | 2019

. Outstanding Poster Awards – Atmospheric Sciences Research Assembly and Student Poster Competition | 2019

. International Conference Fellowship – College of Science, NTU | 2018-2020 (3 times, over 3,000 USD)

SKILLS

Languages: Mandarin (native), English (fluent, TOEFL iBT: 91)

Programing Languages: MATLAB, Python, R, NCL, Fortran, Linux