Ping Jing, Ph.D.

Associate Professor
School of Environmental Sustainability, Loyola University Chicago
1032 W. Sheridan Road, Chicago, IL 60660, U.S.A., (+1) 773-508-7560, pjing@luc.edu

EDUCATION

Georgia Institute of Technology, College of Sciences – Atlanta, GA, U.S.A.
Ph.D. in Earth and Atmospheric Sciences, 2004

Chinese Academy of Meteorological Science – Beijing, China
M.S. in Atmospheric Environment, 1999

Nanjing Institute of Meteorology (now Nanjing University of Information Science and Technology) **– Nanjing, China**
B.S. in Atmospheric Physics, 1996

EXPERIENCE

RESEARCH EXPERIENCE

Loyola University Chicago – Associate Professor (Jul 2019–present)

Evaluate the impact of climate change on weather and air quality in the Midwest; enhance STEM education through engaging students in inclusive research on air pollution.

Loyola University Chicago – Assistant Professor (Aug 2013–Jun 2019)

Investigated the impact of climate change on weather conditions; studied ozone trends in the Midwest in response to emission controls and climate change.

NOAA/NESDIS/STAR/SMCD – Supporting Scientist III (contractor) (Jul 2008–Jul 2009)
Supported the calibration plan for the next-generation weather satellite GOES-R; developed a radiometric reference standard to ensure integrity of climate data records from different satellite observations; provided technical support to the National Weather Service.

Georgia Institute of Technology – Postdoctoral Fellow (May 2004–Jun 2006)
Analyzed satellite observations from the Ozone Monitoring Instrument (OMI) and the Microwave Limb Sounder (MLS) on NASA's Aura mission; interpreted the variations in tropospheric ozone using a regional chemistry and transport model over the United States; assessed the modeling results with ozonesonde data from the World Ozone and Ultraviolet Radiation Data Centre.

Georgia Institute of Technology – Graduate Research Assistant (Aug 1999–May 2004)
Investigated ozone exchange between the extra-tropical lower stratosphere and the subtropical upper troposphere using trajectory models; analyzed the association of the cross-tropopause transport with Rossby wave breaking; analyzed meteorological and chemical data from NASA's Transport and Chemical Evolution over the Pacific (TRACE-P) campaign and the Pacific Exploratory Mission-West (PEM-West) A & B.

TEACHING EXPERIENCE

Loyola University Chicago – Faculty (Aug 2009–present)
Prairie State College – Adjunct Faculty (Aug 2006–May 2009)
Aurora University – Adjunct Faculty (Aug 2006–Jun 2008)
Georgia Institute of Technology – Graduate Teaching Assistant (Fall 2002–May 2004)

GRANTS

- Jing, P. (PI), Schusler, T., Fischer, E., Pollack, I. Collaborative Research: GP-UP: Developing STEM Identity by Engaging URM Undergraduate Students in Research on Air Pollution in Chicago Communities. NSF GEOPAths, 2021–2024, $253,571. Project website: https://sites.google.com/view/caregeopaths/
- Jing, P. (PI) Development of a Rossby wave breaking index as an indicator for the National Climate Assessment. NASA ROSES 2014 A29 Climate Indicators and Data Products for Future National Climate Assessments (NASA Grant NNH14ZDA001N-INCA), 2016–2019, $171,909.
- Jing, P., The Effect of Covid-19 on Ozone Pollution in Chicago in 2020. The 2021 Summer Research Stipends of Loyola University Chicago, 2021, $7,000.

- Jing, P., Impact of Volatile Organic Compounds on Ozone Pollution in the Midwest. The Research Support Grant, Office of Research Services, Loyola University Chicago, 2019–2020, $4,925.
- Jing, P., School Indoor Air Quality Assessment and Remediation. The American Lung Association of the Upper Midwest, 2017–2018, $1,500.
- Jing, P., Effect of climate change on air quality through modifying weather patterns in the Midwest. The 2016 Summer Research Stipends of Loyola University Chicago, 2016, $7,000.
- Jing, P., NO_2 and O_3 Trends in the Chicago Area in Response to Emission Controls. The 2014 Summer Research Stipend of Loyola University Chicago, 2014, $7,000.

SELECTED PUBLICATIONS

JOURNAL ARTICLES (*a student author)

- **Jing, P.,** Goldberg, D., 2022. Influence of Conducive Weather on Ozone in the Presence of Reduced NOx Emissions: A Case Study in Chicago during the 2020 Lockdowns. *Atmospheric Pollution Research*, 13, 101313. https://doi.org/10.1016/j.apr.2021.101313
- **Jing, P.,** Banerjee, S., *Barrera, M., 2020. Impact of Rossby wave breaking on ozone variation in the upper troposphere and lower stratosphere, 1985–2015. *Atmospheric Environment*, 222, 117112. https://doi.org/10.1016/j.atmosenv.2019.117122
- **Jing, P.,** Banerjee, S., 2018. Rossby wave breaking and isentropic stratosphere-troposphere exchange during 1981–2015 in the Northern Hemisphere. *Journal of Geophysical Research*, 123, 9011–9025. https://doi.org/10.1029/2018JD028997
- **Jing, P.**, Lu, Z., Steiner, A.L., 2017. The ozone climate penalty in the Midwestern U.S. *Atmospheric Environment*, 170, 130–142. https://doi.org/10.1016/j.atmosenv.2017.09.038
- **Jing, P.**, O'Brien, T., Streets, D.G., *Patel, M., 2016. Relationship of ground-level ozone with weather patterns in Chicago. *Urban Climate*, 17, 161–175. https://doi.org/10.1016/j.uclim.2016.08.002
- **Jing, P.**, Lu, Z., Xing, J., Streets, D.G., Tan, Q., O'Brien, T., *Kamberos, J., 2014. Response of the summertime ground-level ozone trend in the Chicago area to emission controls and temperature changes 2005–2013. *Atmospheric Environment*, 99, 630–640. https://doi.org/10.1016/j.atmosenv.2014.10.035

PROFESSIONAL SERVICE

- Reviewer for student presentations at the Stokes Midwest Regional Center of Excellence Conference, Inclusion by Design: Nurturing Diversity in STEM (2023)
- Review for NSF's Geoscience Opportunities for Leadership in Diversity program (2022)
- Reviewer of applications to the NASA Postdoctoral Program, 2022.
- Judge for the Outstanding Student Paper Awards at the AGU Fall Meeting, Chicago (2022)
- Judge for the student presentations at the AMS Meeting, 2022.
- Reviewer for *Environmental Science & Technology*, *Journal of Geophysical Research*, *Atmospheric Environment*, *Environmental Pollution*, *the Physics Teacher*, and *Atmosphere*
- Judge for the Outstanding Student Paper Awards at the AGU Fall Meeting, New Orleans, 2017
- Reviewer for the Climate Literacy and Energy Awareness Network (CLEAN)

AWARDS

- The St. Ignatius Loyola Award for Excellence in Teaching, Loyola University Chicago (2024)
- The Provost's Award for Excellence in Teaching Freshmen, Loyola University Chicago (2013)
- Research Excellence Award from the School of Earth and Atmospheric Sciences, Georgia Institute of Technology (2003)

PROFESSIONAL AFFILIATIONS

- Member, American Geophysical Union (1999–present)
- Member, American Meteorological Society (2016–present)
- Member, National Center for Faculty Development and Diversity (2020–present)