

Curriculum Vitae  
**Yong-Cheol Jeong**

Postdoctoral Researcher  
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**ACADEMIC APPOINTMENTS**

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Mar. 2023 ~	<b>Postdoctoral Researcher</b>	
Present	University of Houston	Houston, TX, U.S.
	Department of Earth and Atmospheric Sciences	
	Advisor: Dr. Yuxuan Wang	

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**EDUCATION**

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Mar. 2018 ~	<b>Ph.D.</b>	
Feb. 2023	Hanyang University	Seoul, Korea
	Department of Marine Sciences and Convergent Technology	
	Thesis Topic: <i>Understanding the Interactions between Atmospheric Circulation and Atmospheric Chemical Species in the Climate System</i>	
	Advisor: Prof. Sang-Wook Yeh	
Mar. 2012 ~	<b>Bachelor</b>	
Feb. 2018	Hanyang University, ERICA	Ansan, Korea
	1. Department of Bio-nano Engineering, College of Engineering Sciences	
	Bachelor of Science in Bio-nano Engineering	
	2. Division of Science & Technology, College of Science & Technology	
	Bachelor of Science in Applied Physics	
	Honors: <i>Summa cum laude</i> (G.P.A. 4.15/4.5)	

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**RESEARCH INTEREST**

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Chemistry-Climate Interaction, Air pollution, Air quality, Climate Variability & Extremes, Future Climate Change

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**PEER-REVIEWED PUBLICATIONS**

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1. **Jeong, Y. C.**, Yeh, S. W., Jeong, J. I., Park, R. J., & Wang, Y. (2024). Existence of typical winter atmospheric circulation patterns leading to high PM<sub>2.5</sub> concentration days in East Asia. *Environmental Pollution*, 348, 123829
  2. **Jeong, Y. C.**, Yeh, S. W., Jeong, J. I., Park, R. J., Yoon, J., H., & Yoo, C. (2023). Intrinsic atmospheric circulation patterns associated with high PM<sub>2.5</sub> concentration days in South Korea during cold season. *Science of The Total Environment*, 863, 160878.
  3. **Jeong, Y. C.**, Yeh, S. W., Lim, Y. K., Santoso, A., & Wang, G. (2022). Indian Ocean warming as key driver of long-term positive trend in Arctic Oscillation. *npj Climate and Atmospheric Science*, 5(1), 1-10.
  4. **Jeong, Y. C.**, Yeh, S. W., Lee, S., Park, R. J., & Son, S. W. (2021). Impact of the stratospheric

ozone on the Northern Hemisphere surface climate during boreal winter. *Journal of Geophysical Research: Atmosphere*, 126(17), e2021JD034958.

5. Lee, S. J., **Jeong, Y. C.**, & Yeh, S. W. (2020). The Lagged Effect of Anthropogenic Aerosol on East Asian Precipitation during the Summer Monsoon Season. *Atmosphere*, 11(12), 1356.
6. **Jeong, Y. C.**, Yeh, S. W., Lee, S., & Park, R. J. (2019). A global/regional integrated model system-chemistry climate model: 1. Simulation characteristics. *Earth and Space Science*, 6(10), 2016-2030.

#### UNDER REVISION

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1. Oh, S. Y., Yeh, S. W., **Jeong, Y. C.**, Song, H. J., Lee, M. H.: Increased occurrence of two intrinsic atmospheric circulations in Asia during boreal summer.

#### MANUSCRIPT IN PREPARATION

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1. **Jeong et al.**: Modeling on the drought impact on the ozone pollution in South Korea.

#### INTERNATIONAL CONFERENCES

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1. **Yong-Cheol Jeong**, Sang-Wook Yeh, Guojian Wang, Hyerim Kim and Se-Yong Song: Investigation of the roles of greenhouse gas forcing and Arctic warming on a long-term positive trend of Arctic Oscillation. *103<sup>rd</sup> Annual Meeting of American Meteorological Society (AMS)*, Denver, United States of America, Jan., 2023. (Poster)
2. **Yong-Cheol Jeong**, Sang-Wook Yeh, Guojian Wang, Hyerim Kim and Se-Yong Song: Understanding the role of greenhouse gas forcing leading to a long-term positive trend of Arctic Oscillation. *WCRP CLIVAR CDP annual workshop*, Online, Oct., 2022. (Poster)
3. **Yong-Cheol Jeong** and Sang-Wook Yeh: Study on the dynamical processes on the upward trend of Arctic Oscillation. *American Geophysical Union (AGU) Fall Meeting 2021*, Online, Dec., 2021. (Poster)
4. **Yong-Cheol Jeong**, Sang-Wook Yeh and Young-Kwon Lim: Study on the long term trend of Arctic Oscillation and its driver. *WCRP workshop on attribution of multi-annual to decadal changes in the climate system*, Online, Sep., 2021. (Poster)
5. **Yong-Cheol Jeong**, Sang-Wook Yeh, Seungun Lee and Rokjin J. Park and Seok-Woo Son: Effect of Stratospheric Ozone on Simulation of Winter Surface Temperature in the Northern Hemisphere in Climate Models. *Quadrennial Ozone Symposium (QOS) 2021*, Online, Oct., 2021. (Poster)
6. **Yong-Cheol Jeong**, Sang-Wook Yeh, Seungun Lee and Rokjin J. Park and Seok-Woo Son: Effect of Stratospheric Ozone on the Surface Temperature in the Northern Hemisphere During Boreal Winter. *The 18<sup>th</sup> Annual Meeting of the Asia Oceania Geosciences Society (AOGS)*, Online, Aug., 2021. (Poster)
7. **Yong-Cheol Jeong** and Sang-Wook Yeh: An Upward Trend of Arctic Oscillation and its Possible Driver. *101<sup>st</sup> Annual Meeting of American Meteorological Society (AMS)*, Online, Jan., 2021. (Poster)
8. **Yong-Cheol Jeong** and Sang-Wook Yeh: The impact of the tropical Indian Ocean sea surface temperature forcing on an upward trend of Arctic Oscillation. *American Geophysical Union (AGU) Fall Meeting 2020*, Online, Dec., 2020. (Poster)
9. **Yong-Cheol Jeong** and Sang-Wook Yeh: Connections of ozone concentration change in the low-latitudes and Arctic Oscillation. *Chemistry-Climate Model Initiative (CCMI) Science Workshop 2019*, Chinese University of Hong Kong, Hong Kong, Aug., 2019. (Poster)
10. **Yong-Cheol Jeong**, Sang-Wook Yeh, Seungun Lee and Rokjin J. Park: Study on the modulation of climate variability due to aerosol forcings in East Asia using GRIMs with and

without climate-chemistry interactions. *American Geophysical Union (AGU) Fall Meeting 2018*, Washington, D.C., United States of America, Dec., 2018. (Poster)

11. **Yong-Cheol Jeong**, Sang-Wook Yeh, Seungun Lee and Rokjin J. Park: Analysis of a long-term simulation and its biases of GRIMs-CCM under CCMI REF-C1 forcing. 4th *International Workshop on SLCPs in Asia: Chemistry-climate modeling and its applications*, Jeju, South Korea, October., 2018. (Oral)

## AWARDS AND HONORS

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2023	Award for Outstanding Ph.D. Thesis, Hanyang University, Korea
2022	Award for Outstanding Student's Presentation, Korean Meteorological Society, Korea
2020	Research Assistant Scholarship, Hanyang University, Korea
2018 ~ 2019	HY-iN Scholarship (Merit Based), Hanyang University, Korea
2018	Award for Outstanding Student's Presentation, Korean Meteorological Society, Korea
2018	Graduation with honors: <i>Summa cum laude</i> , Hanyang University, ERICA, Korea
2016 ~ 2017	Merit Based Scholarship, Hanyang University, ERICA, Korea
2013	Excellent Scholarship, Hanyang University, ERICA, Korea
2012	Top Scholarship, Hanyang University, ERICA, Korea

## EXPERIENCES

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- **Attending CCMI 2019 Summer School** at Chinese University of Hong Kong, Hong Kong. 04. Aug. 2019 ~ 06. Aug. 2019
- **Visiting Scientist** at Commonwealth Scientific and Industrial Research Organisation (CSIRO), Melbourne, Australia. 27. May. 2022 ~ 22. Jun. 2022  
Supervisor: Dr. Guojian Wang  
Title: Role of CO<sub>2</sub> forcing and Arctic Sea ice loss on the modulation of weather and climate variability.

## SKILL & ACTIVITIES

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<i>Tools</i>	Python (Analysis, K-mean clustering, etc.), NCL, GrADS
<i>Chemistry-Climate Model</i>	GEOS-Chem, GRIMs-CCM (AGCM: GRIMs + Chemical transport model: GEOS-Chem (v09-01-02))
<i>Languages</i>	Korean, English
<i>Scientific Memberships</i>	AGU, AMS, AOGS, KMS, KSO

## MILITARY SERVICE

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Apr. 2013 ~  
Jan. 2015      Korean Army