

CHAEHYEONG LEE

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RESEARCH INTERESTS

Physical Oceanography

- Upper ocean mixing processes
- Geofluid dynamics
- Air-sea interactions

Ocean Dynamics and Climate Sciences

- Role of the ocean in the climate change
- Ocean's heat budget and its change
- General circulation

EDUCATION

M.S. in Atmospheric Sciences

Mar. 2022 - Aug. 2023

Yonsei University, Seoul, Republic of Korea

Advisor : Prof. Hajoong Song

Thesis: *The Increasing Trend of Persistence of Sea Surface Temperature Anomalies due to Oceanic Processes*

B.S. in Atmospheric Sciences

Mar. 2016 - Feb. 2022

Yonsei University, Seoul, Republic of Korea

Cumulative GPA 3.92/4.3

Graduation ranking (for 4years) : 3/33

major GPA 4.03/4.3

EXPERIENCES

Research Experiences

Master's Degree Researcher

Aug. 2023 - present

Air-Sea Modeling lab., Yonsei University, (PI: prof. Hajoong Song)

Research Assistant

Dec. 2020 - Aug. 2023

Air-Sea Modeling lab., Yonsei University, (PI: prof. Hajoong Song)

Combined Bachelor's-Master's Program

Teaching

Teaching Assistant

- Climate & Civilization (undergraduate course)

spring 2023

- Physical Oceanography (undergraduate course) (in English)

fall 2022

Others

Military services

Apr. 2018 - Nov. 2019

Republic of Korea Army

AWARDS & SCHOLARSHIPS

- High Honors (for High Academic Performance), Yonsei University

Feb. 2022

- Full tuition scholarship for merit (18.6M KRW), Yonsei University

Mar. 2022 - Aug. 2023

- Jilli Scholarship (2.3M KRW) (for High Academic Performance), Yonsei University

Jun. 2020 - Jun. 2021

PUBLICATIONS

Submitted to Nature (under review)

Chaehyeong Lee, Hajoong Song, Yeonju Choi, Ajin Cho, and John Marshall, Observed multi-decadal increase in the surface ocean's thermal inertia, <https://doi.org/10.21203/rs.3.rs-3834500/v1> (preprinted)

In process

Chaehyeong Lee & Hajoong Song, Changes in global ocean's negative heat flux rate

PRESENTATIONS

Chaehyeong Lee, Hajoong Song, Ajin Cho, and Yong-jin Tak, The increasing trend of persistence of sea surface temperature in the past 40 years, AGU Fall meeting, Chicago, Illinois, US (poster) *Dec. 2022*

Chaehyeong Lee, Hajoong Song, Ajin Cho, and Yong-jin Tak, Increasing persistence of sea surface temperature anomaly and duration of marine heatwaves, The Korean Society of Oceanography Spring conference, Jeju, Korea (oral) *Jun. 2022*

TECHNICAL SKILLS

Programming Python
 Julia

Software & Tools MITgcm
 MATLAB

PATENT

Hajoong Song & Chaehyeong Lee, Evaluation System and Method of persistence of Sea Surface Temperature anomalies using autocorrelation coefficient and Arctangent regressive model, Republic of Korea Patent Application 10-2022-0157159 *Nov. 2022*