

# Jia-Xuan Julia Chang

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## EDUCATION

### PHD CANDIDATE IN PHYSICAL OCEANOGRAPHY

School of Earth and Ocean Sciences, University of Victoria, Canada

ADVISER: JODY KLYMAK

Sep 2019 - Present

THESIS TITLE: THE ENERGY PATHWAYS OF THE STRATIFIED FLOW IN KNIGHT INLET BY A THREE-DIMENSIONAL NUMERICAL MODEL

### MASTER OF SCIENCE IN PHYSICAL OCEANOGRAPHY

Institute of Oceanography, National Taiwan University, Taiwan

ADVISER: MING-HUEI CHANG

Sep 2015 - Jul 2017

THESIS TITLE: DYNAMIC OF KELVIN-HELMHOLTZ BILLOWS OBSERVED AROUND GREEN ISLAND, EAST OF TAIWAN

### BACHELOR OF SCIENCE IN CIVIL ENGINEERING

National Taiwan University, Taiwan

Sep 2010 - Jul 2014

## WORKING EXPERIENCE

### RESEARCH ASSISTANT | COASTAL OCEAN DYNAMICS LAB

Institute of Oceanography, National Taiwan University, Taiwan

ADVISER: SHIH-NAN CHEN

Nov 2017 - July 2019

PROJECT: THE INFLUENCE OF SLOPE ON THE COASTAL CURRENT TRANSPORT

## TEACHING EXPERIENCE

### TEACHING ASSISTANT School of Earth and Ocean Sciences, University of Victoria, Canada

EOS 130 - CLIMATE CHANGE

Spring 2022, 2023

EOS 110 - OCEANS & ATMOSPHERE

Fall 2021, Spring 2020

### TUTOR Taipei, Taiwan

HIGH SCHOOL MATH, PHYSICS AND CHEMISTRY

2009-2017

## HONORS AND AWARDS

Nov 2023	Alfred and Adriana Potvin Graduate Scholarship in Ocean Science, University of Victoria
Sep 2019-2022	Graduate Award, University of Victoria
May 2022	Conference Award, Educational Employees Union (CUPE 4163), University of Victoria
Apr 2022	Travel Grant, Faculty of Graduate Studies, University of Victoria
Nov 2021	Captain Wilfred T. Gagnon and Mrs. M. Emma Gagnon Memorial Scholarship
Sep 2019	UVic Graduate Entrance Award
Dec 2016	International Conference Awards, College of Science, National Taiwan University
Dec 2016	American Geophysics Union (AGU) Fall Meeting Student Travel Grant
Oct 2016	International Conference Scholar, Ministry of Science and Technology, Republic of China
May 2016	2nd place, poster competition, Oceanographic Society of the Republic of China Ocean Sciences Conference

## SKILLS

Numerical modeling • MITgcm • ROMS      Programming • Python • Matlab •  $\text{\LaTeX}$  • C++ • Fortran

## CONFERENCE PRESENTATIONS

**JIA-XUAN CHANG**, J. M. Klymak (Feb, 2024) Saturation of Tidal Energy Conversion at Supercritical Topography. Ocean Science Meeting, New Orleans, US

**JIA-XUAN CHANG**, J. M. Klymak (Jun, 2022) Energy partitioning between headland eddies and internal tides over three-dimensional obstacles. Ocean Mixing Gordon Research Conference, South Hadley, US

**JIA-XUAN CHANG**, J. M. Klymak (Feb, 2022) Energy partitioning between headland eddies and internal tides over three-dimensional obstacles. Ocean Science Meeting, Virtual

**JIA-XUAN CHANG** , J. M. Klymak (Nov, 2021) Energy partitioning between wake eddies and internal tides over three-dimensional obstacles. Graduate Student Research Workshop, University of Victoria, Victoria, CA

**JIA-XUAN CHANG** , Shih-Nan Chen (Mar, 2019) Effects of Bottom Slopes on the Structure and Transport of River Plumes. Pacific Asian Marginal Seas (PAMS), Kaohsiung, Taiwan

**JIA-XUAN CHANG** , Ming-Huei Chang (May, 2017) Kelvin-Helmholtz Billows Observed in the Kuroshio off Taiwan with Moored Temperature and Current Measurements. Young Scientists' Forum, Ocean Sciences Conference, Oceanographic Society of the Republic of China (OSROC), Kaohsiung, Taiwan

**JIA-XUAN CHANG** , Ming-Huei Chang (Dec, 2016) Kelvin-Helmholtz Billows Observed in the Kuroshio off Taiwan with Moored Temperature and Current Measurements. American Geophysics Union (AGU) Fall Meeting, San Francisco, US

**JIA-XUAN CHANG** , Ming-Huei Chang (May, 2016) Observations and Linear stability analysis of observed shear instabilities in the Kuroshio off Taiwan. Poster Competition, Ocean Sciences Conference, Oceanographic Society of the Republic of China (OSROC), Taipei, Taiwan

## SEAGOING EXPERIENCE

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Aug	2017	R/V Ocean Researcher 1	<b>STUDY OF THE KUROSHIO - II</b> Recovered two of five PIEs and deployed Vertical microstructure profiler
Apr	2017	R/V Ocean Researcher 3	<b>STUDY OF THE KUROSHIO - II</b> Recovered three of five PIEs and deployed Vertical microstructure profiler
Mar	2017	R/V Ocean Researcher 3	<b>STUDY OF THE KUROSHIO - II</b> Vertical microstructure profiler was performed to identify the mixing properties in the lee of Green Island
Feb - Mar	2017	R/V Roger Revelle	<b>WINTER MONSOON WATER MASS MODIFICATION STUDY, STUDY OF KUROSHIO - II</b> A sub-mesoscale resolving survey of the region southwest of Taiwan and uCTD, VMP250, one seaglider, four slocum gliders, and a wirewalker drifting profiler deployed to examine the mixing when the Kuroshio Branch Current enters the South China Sea
Oct	2016	R/V Ocean Researcher 1	<b>STUDY OF THE KUROSHIO - II</b> Typhoon buoy recovered and deployed four ADCP moorings for battery replacement
Sep	2016	R/V Ocean Researcher 2	<b>STUDY OF THE KUROSHIO - II</b> Recovered and deployed four ADCP moorings for battery replacement
May	2016	R/V Ocean Researcher 3	<b>STUDY OF THE KUROSHIO - II</b> Deployed a mooring with one ADCP and a temperature mooring to observe Kelvin-Helmholtz instabilities occurred above a seamount around Green Island for my master thesis
Apr	2016	R/V Ocean Researcher 1	<b>STUDY OF THE KUROSHIO - II</b> Deployed four ADCP moorings and five PIEs to observe the front of the Kuroshio
Mar	2016	R/V Ocean Researcher 2	<b>STUDY OF THE KUROSHIO - II</b> Same with May 2016 cruise for my master thesis
Nov	2015	R/V Ocean Researcher 1	<b>STUDENT CRUISE</b> Same with May 2016 cruise for my master thesis