Jia-Xuan Julia Chang

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EDUCATION

PHD CANDIDATE IN PHYSICAL OCEANOGRAPHY — Adviser: Jody Klymak
School of Earth and Ocean Sciences, University of Victoria, Canada — 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 — Adviser: Ming-Huei Chang
Institute of Oceanography, National Taiwan University, Taiwan — 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 — Adviser: Shih-Nan Chen
Institute of Oceanography, National Taiwan University, Taiwan — 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 • 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

Aug 2017	R/V Ocean Researcher 1	**Study of the Kuroshio - II** Recovered two of five PIESs and deployed Vertical microstructure profiler
Apr 2017	R/V Ocean Researcher 3	**Study of the Kuroshio - II** Recovered three of five PIESs and deployed Vertical microstructure profiler
Mar 2017	R/V Ocean Researcher 3	**Study of the Kuroshio - II** Vertical microstructure profiler was performed to identify the mixing properties in the lee of Green Island
Feb - Mar 2017	R/V Roger Revelle	**Winter Monsoon Water Mass Modification Study, Study of Kuroshio - II** 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	**Study of the Kuroshio - II** Typhoon buoy recovered and deployed four ADCP moorings for battery replacement
Sep 2016	R/V Ocean Researcher 2	**Study of the Kuroshio - II** Recovered and deployed four ADCP moorings for battery replacement
May 2016	R/V Ocean Researcher 3	**Study of the Kuroshio - II** 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	**Study of the Kuroshio - II** Deployed four ADCP moorings and five PIESs to observe the front of the Kuroshio
Mar 2016	R/V Ocean Researcher 2	**Study of the Kuroshio - II** Same with May 2016 cruise for my master thesis
Nov 2015	R/V Ocean Researcher 1	**Student cruise** Same with May 2016 cruise for my master thesis