YEZHANG LI 李烨璋

Contact Information	Imperial College London Royal School of Mine	<i>E-mail:</i> yezhang.li22@imperial.ac.uk <i>Web:</i> www.imperial.ac.uk/people/yezhang.li22		
CURRENT RESEARCH ASPIRATION	Benchmark Analysis: To design the benchmark problems based on shallow water equations (SWE) for model verification and validation.Mesh Adaptation: To build up the finite element (FE) schemes with adaptive mesh refinement for solving time-dependent SWE based problems in ocean modelling.			
EDUCATION	DUCATION Imperial College London		London, UK	
	 Ph. D. in Computational Geoscience and Engineering Supervisor: Prof. Matthew Piggott, Dr. Stephan Kramer Thesis proposal: <i>Benchmark Analysis and Adaptive Mesh Refinement of Thetis Ocean Models for Tsunami Simulation</i> Research field: Computational Fluid Dynamics, Ocean Modelling 			
	• M. Sc. in Applied Computational Science and Engineering Oct. 2022 - Oct. 2023 Supervisor: Prof. Matthew Piggott, Dr. Stephan Kramer, Dr. Parastoo Salah Dissertation: <i>The Accuracy - Cost Analysis and Stability of Discretisation Methods on</i> <i>Test Cases via Thetis Ocean Modelling</i>			
	University of Liverpool		Liverpool, UK	
	• B. Sc. in Mathematics (<i>with First Class Honours</i>) Oct. 2020 - June 2022 Core modules: Vector Calculus with Applications in Fluid Mechanics, Complex Functions, Theory of Statistical Inference, Numerical Methods for ODEs & PDEs.			
	Xi'an Jiaotong-Liverpool Unive	ersity (XJTLU)	Suzhou, CHINA	
	• B. Sc. in Applied Mathematics (<i>with First Class Honours</i>) Sept. 2018 - Aug. 2020 Core modules: Analysis 1 & 2, Multivariable Calculus (Science and Engineering), Advanced Linear Algebra, Introduction to Probability and Statistics.			
Experiences	University of Liverpool \diamond Unde	rwater Acoustics Seminar	Liverpool, UK	
	Research Intern		June 2022 - Aug. 2022	
	 Supervisor: Prof. Daniel Colquitt, Dr. Stewart Haslinger Designed the numerical models based on Euler and Runge-kutta methods for performing the ray-tracing of ocean acoustics based on Helmholtz equations. Tested and Applied the numerical models to the different ocean conditions. 			
	Astrostatistics Research at XJTI	LU ◊ Dr. Xiaoying Pang's Team	Suzhou, CHINA	
	Research Intern		Sept. 2020 - Mar. 2022	
	 Supervisor: Dr. Xiaoying Pang, Shih-Yun Tang Identified the member candidates of the open clusters in Solar neighborhood from Gaia EDR3 via Self Organizing Map algorithm, StarGo (Web page). Discovered the early-stage tidal structures of Pleiades and NGC 2516 clusters. 			
	Research Intern		June 2020 - Sept. 2020	
	 Supervisor: Dr. Xiaoying Pang, Dr. Lei Liu Improved the isochrone fitting algorithm for identification of star clusters. Updated the distribution of star clusters on the disk of Milky Way Galaxy. 			

PUBLICATIONS AND PRE-PRINTS	[1] Zhangxi Zhou, Yuyao Zhang and Yezhang Li. Model Predictive Control Design of a 3-DOF Robot Arm Based on Recognition of Spatial Coordinates. 2023 The 9th International Conference on Mechatronics and Robotics Engineering (ICMRE), Shenzhen, China, pp. 1-7, 2023.			
	[2] Xiaoying Pang, Shih-Yun Tang and Yuqian Li et al. 3D Morphology of Open Clus- ters in the Solar Neighborhood with Gaia EDR 3. II. Hierarchical Star Forma- tion Revealed by Spatial and Kinematic Substructures. <i>The Astrophysical Journal</i> , 931:156, 2022.			
	[3] Yezhang Li, Xiaoying Pang and Shih-Yun Tang. Evidence of Earl Structures of Open Clusters Revealed by Kinematics with Gaia El Notes of the AAS (RNAAS), 5:173, 2021.			
Conferences	Investigation of the 3D morphology of open star clusters in the process of disruption Summer Undergraduate Research Poster Day \diamond XJTLU Se Poster			
	Properties of open clusters on the Galactic disk Cross-strait Star Cluster online conference 2020 \diamond Remote Talk (contributed)	Dec. 2020		
Teaching Experiences	Department of Earth Science & Engineering at Imperial College	London, UK		
	Graduate Teaching Assistant			
	EART 50018 – Seismology and Numerical Methods EART 50010 – Mathematics for Scientists and Engineers (Part 2)	Spring 2024 Spring 2024		
Technical Proficiency	Computer Programming: • Python*, C++, JavaScript			
	Software & Framework: • Thetis*, Firedrake*, MATLAB*, R, Maple*, LATEX*			
	 Operating Systems: Apple OS X*, Linux (git)*, Microsoft Windows 			
Honors and Awards	Summer Undergraduate Research Fellowship (SURF) – XJTLU Undergraduate Summer Internship in Physics (X-SIP) – XJTLU Silver Medal Winner – The University Physics Competition	2021 2020 2019		