

Eunji Yoo

Applied Mathematics, University of California, Merced

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<https://ejyoo921.github.io/>

Research Interest keywords

Computational Fluid Dynamics, Stokes approximation, Boundary Integral Equations, Modeling, Partial-Differential Equations, Navier-Stokes Equations, Finite Difference Method

Education

Ph.D. Student in Applied Mathematics, University of California, Merced (UC Merced)

- August 2017 – Present
- Advisors: François Blanchette and Shilpa Khatri
- Research topic: Simulations of settling marine aggregates in Stokes approximation with boundary integral

M.S. in Applied Mathematics, San Diego State University (SDSU) [August 2017]

- Advisor: Christopher Curtis

B.S. in Mathematics, Hankuk University of Foreign Studies (HUFS), South Korea [Feb 2013]

Awards

Southern California Edison Fellowship [2021]

UC Merced Applied Math Summer Research Fellowship [2018, 2019]

Valedictorian Award at HUFS [2013]

Asan Foundation Fellowship [2012]

Study Abroad Program Scholarship at HUFS [2011]

HUFS Academic Scholarship [2009 – 2011]

Publication

E. Yoo, S. Khatri, and F. Blanchette, Hydrodynamic forces on randomly formed marine aggregates.
Phys. Rev. Fluids, 5:044305, Apr 2020

E. Yoo, Nonlinear Waves in Density Stratified Fluids over Underwater Topography, Master thesis,
Dept. of Mathematics, San Diego State University

Activities

Presentation at 72nd Annual Meeting of the APS of Fluid Dynamics 2019

Poster presentation at the Yosemite Fluid Meeting (FluMe) 2018

Member of Society for Industrial and Applied Mathematics

Member of American Physical Society

Teaching Experience

Teaching Assistant at UC Merced [Fall 2018 - Present]

- Calculus 2, Vector Calculus, Introduction of Linear Algebra and Differential Equations, Intermediate Differential Equations, and Numerical Methods for Engineers.

Graduate Assistant for Research Experiences for Undergraduates at SDSU [Summer 2017]

- Research topic: Study of Vortex Dynamics with Free Surface in a Shallow Water Regime

Teaching Assistant at SDSU [Fall 2015 - Spring 2017]

- Calculus 2 and Vector Calculus

Teaching 8th grade Math at Yewon school [Spring 2014]

Teaching 10th and 11th grade at Youngpa Girl's High school [Spring 2013 - Fall 2014]

Skills

Computing: Matlab, Python, C++, Mathematica, Basic UNIX Shell, LaTeX

Languages: Korean, English