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Теодор Врећица

Научни сарадник, Математички институт, САНУ

2022 - надаље

САНУ, БЕОГРАД, СРБИЈА
+ Научни сарадник на Одељењу за механику, Математички институт.

2020 - 2022

UNIVERSITY OF CALIFORNIA SAN DIEGO, САН ДИЕГО, САД
+ Постдок : Air-Sea Interaction Laboratory, Scripps Institution of Oceanography.

2015 -2019

УНИВЕРЗИТЕТ У ТЕЛ АВИВУ, ТЕЛ АВИВ, ИЗРАЕЛ
+ Докторант: Marine Engineering and Physics Laboratory.

2014 - 2015

УНИВЕРЗИТЕТ У ТЕЛ АВИВУ, ТЕЛ АВИВ, ИЗРАЕЛ
+ Кандидат за докторанта: Marine Engineering and Physics Laboratory.

2011 - 2013

УНИВЕРЗИТЕТ У БЕОГРАДУ, БЕОГРАД, СРБИЈА
+ Мастер студије, Грађевински факултет – механика флуида, хидрологија, хидротехничке грађевине.

2007 - 2011

УНИВЕРЗИТЕТ У БЕОГРАДУ, БЕОГРАД, СРБИЈА
+ Основне студије, Грађевински факултет – механика флуида, хидрологија, хидротехничке грађевине.

2002 - 2007

МАТЕМАТИЧКА ГИМНАЗИЈА, БЕОГРАД, СРБИЈА
+ Гимназија са фокусом на математику, физику, и програмирање.

+ Teodor Vrecica, Yaron Toledo, Consistent nonlinear stochastic evolution equations for deep to shallow water wave shoaling, Journal of Fluid Mechanics 794, 2016, 310—342.

+ Rotem Soffer, Teodor Vrecica, Eliezer Kit, Yaron Toledo, Observations, modeling, and inter-comparison of waves from deep to intermediate waters in the East Mediterranean basin, Deep Sea Research Part II: Topical Studies in Oceanography 171, 2020.

+ Pavel Chernyshov, Teodor Vrecica, Yaron Toledo, Inversion of Nearshore X-Band Radar Images to Sea Surface Elevation Maps, Remote Sensing 2018, 10, p. 1919.

+ Pavel Chernyshov, Teodor Vrecica, Michael Streßer, Ruben Carrasco, Yaron Toledo, Rapid wavelet-based bathymetry inversion method for nearshore X-band radars, Remote Sensing of Environment 240, 2020.

+ Chernyshov, Pavel, Teodor Vrećica, Sara Nauri, and Yaron Toledo, Wavelet-Based 2-D Sea Surface Reconstruction Method From Nearshore X-Band Radar Image Sequences, IEEE Transactions on Geoscience and Remote Sensing 60 (2022): 1-16.

+ Teodor Vrećica, Rotem Soffer, Yaron Toledo, Infragravity Wave Generation by Wind Gusts, Geophysical Research Letters 46(16), 2019, 9728—9738.

+ Teodor Vrecica, Yaron Toledo, Consistent nonlinear deterministic and stochastic wave evolution equations from deep water to the breaking region, Journal of Fluid Mechanics 877, 2019, 373—404.

+ Raphael Stuhlmeier, Teodor Vrecica, Yaron Toledo, Nonlinear Wave Interaction in Coastal and Open Seas: Deterministic and Stochastic Theory, Nonlinear Water Waves, 2019, 151--181, Springer.

+ Teodor Vrecica, Nick Pizzo, and Luc Lenain 2022. "Observations of strongly modulated surface wave and wave breaking statistics at a submesoscale front", Journal of Physical Oceanography, 2022, 289-304, AGU.

+ Teodor Vrecica, Quentin Paletta, and Luc Lenain 2021. "Deep learning applied to sea surface semantic segmentation: Filtering sunglint from aerial imagery", ICML 2021 (conference proposal).

Оралне презентације

+ T. Vrecica, and Y. Toledo 2016. "Nonlinear triad source term for wave forecasting models", WISE 2016

+ T. Vrecica, and Y. Toledo 2017. "Generation of infragravity waves through temporal and spatial homogeneity", WISE 2017

+ T. Vrecica, and Y. Toledo 2018. "Nonlinear generation of infragravity waves in deep waters", WISE 2018

+ T. Vrecica, and Y. Toledo 2018. "Nonlinear generation of infragravity waves in deep waters", Plymouth University, Mathematics and Engineering faculties seminar

+ T. Vrecica, and Y. Toledo 2018. "Nonlinear and linear surface gravity waves", Belgrade University, Institute of Mathematics seminar

+ T. Vrecica, N. Pizzo, and L. Lenain 2021. "Modulation of surface waves and breaking statistics by a submesoscale ocean front", So Cal Fluids XIV.

+ T. Vrecica, N. Pizzo, and L. Lenain 2021. "Observations of strongly modulated surface wave and wave breaking statistics at a submesoscale front ", WISE 2021.

+ T. Vrecica, N. Pizzo, and L. Lenain 2022. "Observations of strongly modulated surface wave and wave breaking statistics at a submesoscale front ", Ocean Sciences Meeting 2022.

+ T. Vrecica, Y. Toledo. "New stochastic and deterministic wave evolution models in coastal waters", Ocean Sciences Meeting 2020.

+ Y. Toledo, T. Vrecica, R. Soffer. "Infragravity wave generation by nonlinear interaction between wind waves and wind gusts", Ocean Sciences Meeting 2020.

+ T. Vrecica, Y. Toledo. "Nonlinear generation of infra-gravity waves from deep to shallow water", EGU 2018.

Постер презентације

+ R. Soffer, T. Vrecica, E. Kit, and Y. Toledo 2018. "Observations, modeling, and inter-comparison of waves from deep to intermediate waters in the East Mediterranean basin", WISE 2018

+ P. Chernyshov, T. Vrecica, M. Streßer, R. Carrasco, and Y. Toledo 2019. "Rapid Wavelet-based Bathymetry Inversion Method for Nearshore X-Band Radars" EGU 2019

+ T. Vrecica, Q. Paletta, and L. Lenain 2021 "Deep learning applied to sea surface semantic segmentation: Filtering sunglint from aerial imagery", ICML 2021

+ T. Vrecica, N. Pizzo, and L. Lenain "Observations of wave breaking statistics", WISE 2022

+ T. Vrecica, N. Pizzo, and L. Lenain "Observations of wave breaking statistics", GDIS 2022

САРАДЊА

+ Заједничко истраживање са професором Виктором Шриром, Новембар-Децембар 2018, Keele University. Теме сарадње укључују: нелинеарне интеракције, асимтотска решења еволуције таласа са ангуларном дисперзијом, пропагација семидисперзивних таласа.

РЕЦЕНЗИЈЕ

+ Служио сам као рецензент за: Pure and Applied Geophysics, ISPR Journal of Photogrammetry and Remote Sensing.

СОФТВЕР

+ Wolfram Mathematica
+ Matlab, Octave
+ Python
+ C
+ C#
+ WAVEWATCH III
+ Autocad

ИНТЕРЕСОВАЊА

+ Нелинеарни таласи
+ Физика таласа
+ Стохастичко моделовање
+ Анализа података
+ Ломљење таласа
+ Интеракције океана и атмосфере
+ Интеракције струја и таласа
+ Computer vision
+ Machine learning