David R. Fuhrman - DTU Orbit (06/05/2019)

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Research outputs:

**Generalized time scale for wave-induced backfilling beneath submarine pipelines**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**Numerical modeling of flow and morphology induced by a solitary wave on a sloping beach**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**A solution to the over-production of turbulence beneath surface waves in RANS models**
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2018 › Research › peer-review

**Density based topology optimization of turbulent flow heat transfer systems**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**Experimental study of tsunami-induced scour around a monopile foundation**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**Hydrodynamics under large-scale regular and bichromatic breaking waves**
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2018 › Research › peer-review

**Hydrodynamics under Large-Scale Waves Breaking over a Barred Beach**
Research output: Contribution to conference › Paper – Annual report year: 2018 › Research › peer-review

**Influence of turbulent horseshoe vortex and associated bed shear stress on sediment transport in front of a cylinder**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**On the over-production of turbulence beneath surface waves in Reynolds-averaged Navier–Stokes models**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**Run-up, boundary layers and shear stresses beneath shoaling tsunamis**
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2018 › Research › peer-review

**Topology optimization of turbulent flows**
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review
Numerical investigation of flow and scour around a vertical circular cylinder
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

Flow and sediment transport induced by plunging waves
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review

Improving Tsunami Resilience in Europe - ASTARTE
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2014 › Research › peer-review

Numerical calculation of backfilling of scour holes
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2014 › Research › peer-review

Numerical modeling of backfilling process around monopiles
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review

Numerical simulation of wave-induced scour and backfilling below submarine pipelines
Research output: Chapter in Book/Report/Conference proceeding › Conference abstract in proceedings – Annual report year: 2014 › Research › peer-review

Numerical simulation of wave-induced scour and backfilling processes beneath submarine pipelines
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Laboratory observations of flow and sediment transport induced by plunging regular waves
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

RANS-based simulation of turbulent wave boundary layer and sheet-flow sediment transport processes
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

A wave generation toolbox for the open-source CFD library: OpenFoam
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

RANS-based simulation of turbulent wave boundary layers and sediment transport
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2012 › Research

Third-order theory for multi-directional irregular waves
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Flow and sediment transport induced by a plunging solitary wave
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Roughness-induced streaming in turbulent wave boundary layers
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Flow and Sediment transport under a plunging solitary wave
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

High-order Boussinesq-type modelling of nonlinear wave phenomena in deep and shallow water
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2010 › Research › peer-review
Physically-consistent wall boundary conditions for the k-ω turbulence model
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Simulation of turbulent wave boundary layers on spatially varying bottom roughness
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2010 › Research › peer-review

Bed slope effects on turbulent wave boundary layers: 1. Model validation and quantification of rough-turbulent results
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Bed slope effects on turbulent wave boundary layers: 2. Comparison with skewness, asymmetry, and other effects
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Tsunami generation, propagation, and run-up with a high-order Boussinesq model
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Velocity potential formulations of highly accurate Boussinesq-type models
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Improved velocity potential formulations of highly accurate Boussinesq-type models
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2008 › Research › peer-review

On the solitary wave paradigm for tsunamis
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Run-up of tsunamis and long waves in terms of surf-similarity
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Simulation of nonlinear wave run-up with a high-order Boussinesq model
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Surf similarity and solitary wave runup
Research output: Contribution to journal › Journal article – Annual report year: 2008 › Research › peer-review

Analytical and numerical models for tsunami run-up
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2007 › Research › peer-review

Numerical modelling of tsunami generation and run-up, and the surf similarity of solitary waves
Research output: Contribution to journal › Journal article – Annual report year: 2007 › Research › peer-review

A Boussinesq-type method for fully nonlinear waves interacting with a rapidly varying bathymetry
Research output: Contribution to journal › Journal article – Annual report year: 2006 › Research › peer-review

A numerical study of nonlinear wave run-up on a vertical plate
Research output: Contribution to journal › Journal article – Annual report year: 2006 › Research › peer-review

Bichromatic waves in finite depth
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2006 › Research › peer-review
Numerical modeling of nonlinear water waves
Research output: Contribution to conference › Poster – Annual report year: 2004 › Research

Numerical modeling of three-dimensional nonlinear water wave surface patterns
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2004 › Research › peer-review

Numerical solutions of fully nonlinear and highly dispersive Boussinesq equations in two horizontal dimensions
Research output: Contribution to journal › Journal article – Annual report year: 2004 › Research › peer-review

Preconditioning methods for a high-order Boussinesq water wave model
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2003 › Research

Data assimilation of local model error forecasts in a deterministic model
Research output: Contribution to journal › Journal article – Annual report year: 2002 › Research › peer-review

Data assimilation using local models
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2002 › Research › peer-review

Data assimilation and error prediction using local models
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2001 › Research › peer-review

Selection of input parameters for a hydrologic runoff model using a neural network
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2000 › Research › peer-review

Projects:

Detailed analyses of flow in large porous structures in the marine environment
Project: PhD

Detailed analyses of breaking waves and their interaction with offshore structures in intermediate depth
Project: PhD

Dynamics and kinematics of extreme irregular waves
Project: PhD

Advanced CFD computation of breaking wave loads on offshore wind turbine structures
Project: PhD

Tsunami-Seabed Interaction
Project: PhD

CFD analyses of flow and scour around a mono-pile with and without scour protection
Project: PhD

Topology Optimization and Lattice Boltzmann Methods
Project: PhD
Development of natural seabed forms and their interaction with OWF
Project: PhD

Numerical techniques for solving Boussinesq equations for fully nonlinear and extremely dispersive water waves
Project: PhD

Density-driven currents and deposition of fine materials
Project: PhD

Wave interaction with porous coastal structures
Project: PhD

En komplet hydro- og morfodynamisk beskrivelse af revleudvikling
Project: PhD

Detailed analyses of breaking wave dynamics interaction with nearshore and offshore structures
Project: PhD

Scour Protection of Offshore Wind Farms
Project: PhD

Assessment, STrategy And Risk Reduction for Tsunamis in Europe
Project: Research

Activities:

Ocean Dynamics (Journal)
Activity: Editorial work and peer review › Journal editor › Research

Coastal Dynamics 2017
Activity: Attending an event › Participating in or organising a conference

Coastal Engineering (Journal)
Activity: Editorial work and peer review › Journal editor › Research

Journal of Waterway, Port, Coastal, and Ocean Engineering (Journal)
Activity: Editorial work and peer review › Journal editor › Research

Applied Ocean Research (Journal)
Activity: Editorial work and peer review › Journal editor › Research

Journal of Offshore Mechanics and Arctic Engineering (Journal)
Activity: Editorial work and peer review › Journal editor › Research

Prizes:

Outstanding Reviewer Award
Prize: Prizes, scholarships, distinctions