Ulrik Dam Nielsen - DTU Orbit (07/05/2018)

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**Publications:**

- **A brute-force spectral approach for wave estimation using measured vessel motions**
  Publication: Research - peer-review › Journal article – Annual report year: 2018

- **Online wave estimation using vessel motion measurements**
  Publication: Research - peer-review › Conference article – Annual report year: 2018

- **Response predictions using the observed autocorrelation function**
  Publication: Research - peer-review › Journal article – Annual report year: 2018

- **Sea State Estimation Using Vessel Response in Dynamic Positioning**
  Publication: Research - peer-review › Journal article – Annual report year: 2018

- **Ship motion-based wave estimation using a spectral residual-calculation**
  Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

- **A brute-force spectral approach for wave estimation using measured vessel responses**
  Publication: Research - peer-review › Journal article – Annual report year: 2017

- **A concise account of techniques available for shipboard sea state estimation**
  Publication: Research - peer-review › Journal article – Annual report year: 2016

- **Deterministic Predictions of Vessel Responses Based on Past Measurements**
  Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

- **Intact stability analysis of dead ship conditions using FORM**
  Publication: Research - peer-review › Journal article – Annual report year: 2017

- **Statistical prediction of parametric roll using FORM**
  Publication: Research - peer-review › Journal article – Annual report year: 2017

- **Transformation of a wave energy spectrum from encounter to absolute domain when observing from an advancing ship**
  Publication: Research - peer-review › Journal article – Annual report year: 2017
An attempt to define critical wave and wind scenarios leading to capsize in beam sea
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

A Review of Sea State Estimation Procedures Based on Measured Vessel Responses
Publication: Research - peer-review › Journal article – Annual report year: 2016

A Study on the uncertainty and sensitivity in numerical simulation of parametric roll
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Estimation of waves and ship responses using onboard measurements
Publication: Research › Ph.D. thesis – Annual report year: 2016

Estimation of wind sea and swell using shipboard measurements – A refined parametric modelling approach
Publication: Research - peer-review › Journal article – Annual report year: 2015

Evaluation of Shipboard Wave Estimation Techniques through Model-scale Experiments
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Improved Wave-vessel Transfer Functions by Uncertainty Modelling
Publication: Research - peer-review › Journal article – Annual report year: 2016

Proceedings of the 13th International Symposium on PRActical Design of Ships and Other Floating Structures (PRADS' 2016)
Publication: Research - peer-review › Anthology – Annual report year: 2016

Selection of the optimum combination of responses for Wave Buoy Analogy - An approach based on local sensitivity analysis
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

New Concepts for Shipboard Sea State Estimation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Prediction of First-Order Vessel Responses with Applications to Decision Support Systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Response-based sea state estimation for onboard DSS - Safe and Efficient Marine Operations
Publication: Research › Sound/Visual production (digital) – Annual report year: 2015

Sea State Estimation Using Model-scale DP Measurements
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Study on Short-term Variability of Ship Responses in Waves
Publication: Research - peer-review › Journal article – Annual report year: 2015

Trend modelling of wave parameters and application in onboard prediction of ship responses
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Uncertainties in ship-based estimation of waves and responses
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Full Scale Measurements of the Hydro-Elastic Response of Large Container Ships for Decision Support
Publication: Research › Ph.D. thesis – Annual report year: 2014
Loads for use in the design of ships and offshore structures
Publication: Research - peer-review › Journal article – Annual report year: 2015

Parametric estimation in the wave buoy analogy - an elaborated approach based on energy considerations
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Reducing roll motion by passive free surface tanks
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Study on Short-term Variability of Ship Responses in Waves
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

The New Maritime Engineering Education at the Technical University of Denmark
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Comparisons of Means for Estimating Sea States from an Advancing Large Container Ship
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Educating Maritime Engineers for a Globalised Industry
Publication: Research › Sound/Visual production (digital) – Annual report year: 2013

Evaluation of Response Prediction Procedures using Full Scale Measurements for a Container Ship
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Study on a method for estimating fuel consumption in a seaway
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Blind estimation of a ship’s relative wave heading
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Educating Maritime Engineers for a Globalised Industry - Bridging the Gap Between Industry and Universities
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Fremtidens maritime ingeniøruddannelse - Tiltag og visioner på Danmarks Tekniske Universitet
Publication: Communication › Sound/Visual production (digital) – Annual report year: 2012

Sea state estimation from an advancing ship – A comparative study using sea trial data
Publication: Research - peer-review › Journal article – Annual report year: 2011

Sea state estimation from an advancing ship - The wave buoy analogy: Presentation at Skibsteknisk Selskab
Publication: Communication › Sound/Visual production (digital) – Annual report year: 2012

The Maritime Engineering Education: meeting industry demands
Publication: Research › Journal article – Annual report year: 2012

Towards fault-tolerant decision support systems for ship operator guidance
Publication: Research - peer-review › Journal article – Annual report year: 2012

A novel approach for navigational guidance of ships using onboard monitoring systems
Publication: Research - peer-review › Journal article – Annual report year: 2011
Fault Detection for Shipboard Monitoring – Volterra Kernel and Hammerstein Model Approaches
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Numerical Simulations of the Rolling of a Ship in a Stochastic Sea - Evaluations by use of MCS and FORM
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Calculating Outcrossing Rates used in Decision Support Systems for Ships
Publication: Research - peer-review › Article in proceedings – Annual report year: 2008

Introducing two hyperparameters in Bayesian estimation of wave spectra
Publication: Research - peer-review › Journal article – Annual report year: 2008

Risk-based decision support – Evaluation of limit states using parallel system analysis
Publication: Research › Sound/Visual production (digital) – Annual report year: 2008

The wave buoy analogy - estimating high-frequency wave excitations
Publication: Research - peer-review › Journal article – Annual report year: 2008

Bayesian Estimation of Wave Spectra – Proper Formulation of ABIC
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

Response-Based Estimation of Sea State Parameters
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

Response-based estimation of sea state parameters - Influence of filtering
Publication: Research - peer-review › Journal article – Annual report year: 2007

Comparisons of Methods for Estimation of On-site Directional Wave Spectra
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Estimations of On-site Directional Wave Spectra from Measured Ship Responses
Publication: Research - peer-review › Journal article – Annual report year: 2006

SeaSense - Real-time Onboard Decision Support
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Estimation of directional wave spectra from measured ship responses
Publication: Research › Ph.D. thesis – Annual report year: 2005

Estimation of Directional Wave Spectra from Measured Ship Responses
Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

Ride Control Systems - Reduced Motions on the Cost of Increased Sectional Forces ?
Publication: Research - peer-review › Article in proceedings – Annual report year: 2003

Projects:

Reconfigurable Modular Robotic System for Aquatic Environment
Project
Development of a decision support system for ships based on continuous measurements
Project: PhD

Operation of Ultra Large Container Ships
Project: PhD

Integretert beslutningsstøttesystem for brug ombord i skibe
Project: PhD

Onboard Decision Support Systems for Optimal Operation
Project: PhD

Vessel Performance Control
Project: PhD

Monitorering og beslutningsstøtte for skibes sødygtighed
Project: PhD

Activities:

Sea state estimation using networked heterogeneous sensor systems
Activity: Talks and presentations › Conference presentations

Response prediction of vessel motions and sea state estimation from ships
Activity: Talks and presentations › Conference presentations

Shipboard sea state estimation based on wave-induced response measurements
Activity: Talks and presentations › Conference presentations

New Concepts for Shipboard Sea State Estimation
Activity: Talks and presentations › Conference presentations

Maritime Engineering Education (at DTU): What are the challenges?
Activity: Talks and presentations › Conference presentations

Response-based sea state estimation for onboard DSS - Safe and Efficient Marine Operations
Activity: Talks and presentations › Conference presentations