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

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
Nielsen, U. D. 2016 In : Journal of the Japan Society of Naval Architects and Ocean Engineers. 23, 6 p.
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
Nielsen, U. D. 2015
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
**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**
Nielsen, U. D. & Andersen, I. M. V. 2012
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**
Nielsen, U. D. & Andersen, I. M. V. 2012
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

**A Study on Parametric Wave Estimation Based on Measured Ship Motions**
Publication: Research - peer-review › Journal article – Annual report year: 2012

**Fremtidens maritime ingeniøruddannelse: De maritime industriens behov samt engagement i forhold til. Udredningsopgave for Den Danske Maritime Fond 28.november 2011**
Publication: Communication › Report – Annual report year: 2012

**Onboard monitoring of fatigue damage rates - Decision support and sea state estimation**
Publication: Research › Sound/Visual production (digital) – Annual report year: 2011

**Onboard monitoring of fatigue damage rates in the hull girder**
Publication: Research - peer-review › Journal article – Annual report year: 2011

**Onboard sea state estimation based on measured ship motions**
Correction: The text is already presented in a natural format.
Ride Control Systems - Reduced Motions on the Cost of Increased Sectional Forces?

Projects:

Reconfigurable Modular Robotic System for Aquatic Environment
Galeazzi, R., Christensen, D. J., Mariani, P., Visser, A., Özkil, A. G. & Nielsen, U. D.
01/02/2016 → 31/01/2018
Project

Development of a decision support system for ships based on continuous measurements
Choi, J. H., Nielsen, U. D., Andersen, I. M. V. & Jensen, J. J.
01/08/2014 → 30/07/2018
Project: PhD

Operation of Ultra Large Container Ships
15/03/2013 → 04/07/2016
Project: PhD

Integreteret beslutningsstøttesystem for brug ombord i skibe
01/11/2010 → 29/09/2014
Project: PhD

Onboard Decision Support Systems for Optimal Operation
Lajic, Z., Nielsen, U. D., Jensen, J. J., Pedersen, P. T., Petersen, J. B. & Sørensen, A. J.
01/09/2007 → 02/02/2011
Project: PhD

Vessel Performance Control
01/03/2007 → 19/03/2015
Project: PhD

Monitorering og beslutningsstøtte for skibes sædgyltighed
01/03/2002 → 28/09/2005
Project: PhD

Activities:

Response prediction of vessel motions and sea state estimation from ships
Nielsen, U. D. (Guest lecturer)
17 Nov 2017
Activity: Talks and presentations › Conference presentations

Shipboard sea state estimation based on wave-induced response measurements
Nielsen, U. D. (Guest lecturer)
26 Sep 2017
Activity: Talks and presentations › Conference presentations
New Concepts for Shipboard Sea State Estimation
Nielsen, U. D. (Speaker)
1 Mar 2016
Activity: Talks and presentations › Conference presentations

Maritime Engineering Education (at DTU): What are the challenges?
Nielsen, U. D. (Lecturer)
9 Oct 2015
Activity: Talks and presentations › Conference presentations

Response-based sea state estimation for onboard DSS - Safe and Efficient Marine Operations
Nielsen, U. D. (Invited speaker)
13 Nov 2014
Activity: Talks and presentations › Conference presentations