



# Stand der Maritimen Forschung in Deutschland Ship Technology Research/Schiffstechnik (STR) Konferenz 2018

28 – 29 Juni 2018  
Technische Universität Hamburg

**Donnerstag, 28. Juni 2018 (TUHH Hauptgebäude)**

12:00-13:00 Mittagsimbiss

13:00-13:50 Structural Strength (Chair: Sören Ehlers)

- A simplified welding simulation approach used to design a fatigue test specimen containing residual stresses by Friedrich N. & Ehlers S.
- Investigations on the influence of shear and lateral loads on the collapse behaviour of plate structures under inplane thrust by Lindemann T & Kaeding P.

14:00-14:50 Fluid-Structure-Interaction (Chair: Alexander Düster)

- Hydroelastic Effects on Wave-Induced Loads acting on Offshore Structures in Extreme Seas by Ley J & el Moctar O.
- A partitioned solution approach for the simulation of the dynamic behaviour of flexible marine propellers by Radtke L, Abdel-Maksoud M & Düster A.

14:50-15:20 Kaffeepause

15:20-17:00 Multiphase Flows (Chair: Ould el Moctar)

- Experimental and numerical investigation of cavitation bubble collapse near a solid wall by Sagar H & el Moctar O.
- 4-way coupling Euler-Lagrange-Method for cavitating flows by Peters A, Lantermann U & el Moctar O.
- Potential and limitations of scale resolved simulations for ship hydromechanics applications by Kornev N & Shevchuk I.
- Analysis of Violent Flow in Moving Containments Using Particle Image Velocimetry by Potthoff R, Neugebauer J & el Moctar O.

18:00 Abendessen

**Freitag, 29. Juni 2018 (TUHH Hauptgebäude)**

08:30-10:10 Ship Hydrodynamics I (Chair: Cura-Hochbaum)

- Assessment of floating and yaw stability of a self-aligning floating offshore wind turbine by Abdel-Maksoud M, Netzband S & Schulz C.
- Model Scale Investigation of Aspects Influencing the Ice Resistance of Ships Sailing Ahead in Level Ice by Myland D & Ehlers S.
- System based simulation approach for validation of a modular underwater vehicle concept by Ritz S, Rentzow E, Golz M, Boeck F, Wieczorek T and Holbach G.
- Damping Analysis of a semi-submersible floating wind turbine by Burmester S, Vaz G and Ould el Moctar B.

10:10-11:00 Kaffeepause

11:00-11:50 Ship Hydrodynamics II (Chair: Moustafa Abdel-Maksoud)

- On the Heading Stability of a Ship in Waves by Cura-Hochbaum A & Uharek S
- A Hybrid Method for the Computation of the Free Vortex System of Multi Component Propulsors by Krüger S.

11:50-13:05 Ship Design (Chair: Robert Bronsart)

- Requirement Verification in Ship Concept Design by Lindner H & Bronsart R.
- Design and system integration of a hybrid inland push boat powered by hydrogen fuel cells and Li-ion NMC batteries and the challenge of providing a bunkering infrastructure by Haase O, Apenbrink S, Krebs SR, Segieth P & Holbach G.
- A Fleet Efficiency Factor (FEF) for fleet size and mix problems by Ehlers S, Pache H, von Bock und Polach F & Johnsen T

13:05-14:00 Mittagsimbiss