

Marine Control Workshop 2007 (MARCOW'07)



15-16 February 2007, Oppdal, Norway

Final Program

Each academic talk lasts 20 min.; 15 min. for presentation and 5 min. for Q&A. Each industry talk lasts 50 min.; 40 min. for presentation and 10 min. for Q&A.

Day 1 (Thursday 15 February 2007)

09.00 **Introduction & Overview** (Morten Breivik, NTNU)

Session 1

- 09.20 **Dynamic Stability of Ships** (Jelena Vidic-Perunovic, DTU)
- 09.40 **Parametric Rolling of Ships** (Christian Holden, NTNU)
- 10.00 **Handling Parametric Roll by Active Control** (Roberto Galeazzi, DTU)
- 10.20 Coffee & Refreshments
- 10.40 **Reducing Frequency and Voltage Fluctuations on Ships with Electrical Propulsion using Power Redistribution Control** (Damir Radan, NTNU)
- 11.00 **Thrust Allocation Systems** (Eivind Ruth, NTNU)
- 11.20 **Marine Anti-Spin Control by Controller Resetting** (Jostein Bakkeheim, NTNU)
- 11.40 **Four-Quadrant Thrust Control with Loss Estimation for Marine Propellers** (Luca Pivano, NTNU)
- 12.00 End of Session 1

12.00 Lunch

Session 2

- 13.00 **The Maritime Regulatory Regime** (Per Martinsen, Det Norske Veritas)
- 14.00 **The Digital Big Bang: A Challenge for Maritime and Offshore Safety** (Asgeir J. Sørensen, Marine Cybernetics)
- 15.00 **Industrial Real-Life Challenges: Beyond Stability Theory?** (Panel Discussion Including Coffee & Refreshments)
- 17.00 End of Session 2

19.00 Dinner

Day 2 (Friday 16 February 2007)

Session 3

- 09.20 **Control of Tensegrity Systems** (Anders Sunde Wroldsen, NTNU)

- 09.40 **Control of Marine Risers** (Anne Marthine Rustad, NTNU)
- 10.00 **Structural Reliability-Based Control for Moored Vessels: Experimental Results** (Per Ivar Barth Berntsen, NTNU)
- 10.20 Coffee & Refreshments
- 10.40 **Diagnosis and Fault-Tolerant Control for Thruster-Assisted Position Mooring Systems** (Trong Dong Nguyen, NTNU)
- 11.00 **Path Following for Marine Vehicles in 2D and 3D** (Even Børhaug, NTNU)
- 11.20 **Choreography of Marine Systems** (Erik Kyrkjebø, NTNU/Sintef)
- 11.40 **Applications and Possibilities for Low-Cost Unmanned Underwater Vehicles** (Jon Refsnes, NTNU)
- 12.00 End of Session 3

12.00 Lunch

Session 4

- 13.00 **Applications and Possibilities for Unmanned Vessel Technology** (Vegard E. Hovstein, Peregrine Dynamics)
- 14.00 **Unmanned Technology: The Future?** (Panel Discussion Including Coffee & Refreshments)
- 15.00 End of Session 4
- 15.20 Conclusions & Wrap-Up

Participants, Organizing Committee, and Sponsor

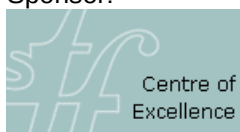
The workshop gathers researchers, control system vendors, and classification/verification companies. Specifically, participants come from:

- Academia:
 - Danish Technical University (DTU)
 - Norwegian University of Science and Technology (NTNU)
- Industry:
 - Det Norske Veritas
 - Kongsberg Defence & Aerospace
 - Kongsberg Maritime
 - Kongsberg Seatex
 - Marine Cybernetics
 - Marintek
 - Peregrine Dynamics
 - Rolls-Royce Marine
 - Sintef

The organizing committee consists of:

- Morten Breivik
- Tristan Perez
- Thor I. Fossen
- Asgeir J. Sørensen

Sponsor:



**Centre for
Ships and Ocean Structures**

