13 April 2016

Chair: Soyland, Oftedahl

- 08:40h Geir Axel Oftedahl (Jotun), <u>Svend Soyland</u> (Nordic Energy Research) ISO 19030 – Why the Standard Is Needed, What It Covers and How It Has Been Developed
- 09:05h Geir Axel Oftedahl (Jotun)

Advances in Measurements of Hull and Propeller Performance: Implications for Buyers and Sellers of Performance Enhancing Technologies and Solutions

09:30h Antti Solonen (Eniram)

Experiences with ISO-19030 and Beyond

09:55h Tristan Smith (UCL)

The Count of Monte Carlo - Uncertainty in Performance Monitoring

10:20h coffee break

Chair: Bertram, Kariranta

- 10:50h <u>Geoff Swain</u> (Florida Inst. of Technology), Geir Lund (Royal Caribbean) Dry Dock Inspection Protocol
- 11:15h Helge Bartels (E.R. Schiffahrt)

Performance Monitoring & Hull Performance: A Ship Manager's View

11:40h Fumi Yakabe (JSTRA)

Observational Study on Powers Estimated by Shaft Torque and Fuel Consumption

12:05h <u>Ryo Kakuta</u>, Hideyuki Ando (MTI), Takashi Yonezawa (NYK) Utilization of Vessel Performance Management System in Shipping Company

12:30h lunch

Tagliata di Manzo rucola e grana (strips of fillet of beef and rocket) Semifreddo agli amaretti e coulis al cacao (macaroon parfait)

Chair: Bos, Hagestuen

14:00h Robert Hilliard (Intermarine Consulting)

A Big-Data Concept to Identify Impact of Hull Coating Types on Hull Performance

14:25h Elizabeth Haslbeck, et. al. (NSWC-CD)

Propeller Roughness Condition and its Impact on Vessel Fuel Efficiency

14:50h Lars Greitsch, Thomas Goedicke (MMG) Numerical Towing Tank Approach versus Noon Data – Powering Predic-

tions using RANSE CFD

15:15h <u>Kenichi Fukuda</u>, Yoshihisa Okada, Kenta Katayama, Akinori Okazaki (Nakashima Propeller) *An Advanced CFD Analysis Model for Propulsion Systems*

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15:40h coffee break

Advisory committee: Next HullPIC Rest: free time

14 April 2016

Chair: vom Baur, Kidd

- 08:40h Andreas Krapp (Jotun), Volker Bertram (DNV GL) Splitting Hull and Propeller Performance – Theory and Practice 09:05h Daniel Kane (Propulsion Dynamics Inc.) Isolating Fuel Penalties between Hull Resistance and Propeller Friction and Experience with Ships in Operation 09:30h Erik van Ballegooijen, Tiberiu Muntean (VAF) Fuel Saving Potentials via Measuring Propeller Thrust and Hull Resistance at Full Scale: Experience with Ships in Service 09:55h Jan Wienke (DNV GL) Energy Efficiency Design Index in View of Performance Monitoring 10:20h coffee break Chair: Yakabe, Haslbeck 10:50h Ari Vésteinsson (Marorka) Continuous Estimate of Hull and Propeller Performance Using Auto-Logged Data 11:15h Michael vom Baur (Hoppe Marine) Acquisition and Integration of Meaningful Performance Data on Board – Headaches and Highlights 11:40h Andreas Krapp (Jotun), Volker Bertram (DNV GL), Björn Walther (NRS) Insight from a JIP on Hull Performance Monitoring for Containerships 12:05h Giovanni Cusano, Stefano Qualich, et al. (Cetena) Monitoring, Reporting, Verifying and Optimizing Ship Propulsive Performances: A Support System to Ship Management Focused on Energy Efficiency 12:30h lunch *Risotto with truffle cream and grana shavings* Piedmont parfait on Passito wine sauce and nuts from Chivasso Chair: Yakabe, Haslbeck 14:00h Alessandro Carchen (Univ. Newcastle) Accuracy of Doppler Logs and Electro-Magnetic Logs in Different Boundary Conditions
- 14:25h <u>Dinis Oliveira</u>, Lena Granhag (Chalmers TU) Future Work on Drag and Boundary Layer Properties of Biofouling Collected From Commercial Vessels

We thank our sponsors: Jotun, DNV GL, Akzonobel, BMT Smart, Eniram, Hempel, Hoppe Marine, JSTRA, Kyma, Napa, Propulsion Dynamics, Marorka

14:50h <u>Barry Kidd</u>, Haoliang Chen (Akzonobel)

Predicting the Impact of Fouling Control Coatings on Ship Efficiency 15:15h Marco Bibuli (ISSIA)

Cooperative Robotics – Technology for Future Underwater Cleaning 15:40h coffee break

16:10h small group work: ISO work; Joint Research preparation

15 April 2016

Chair: Tullberg, Kane

- 08:40h <u>Andrea Orlandi</u> et al. (LaMMA), Andrea Coraddu (Damen Shipyards) Evaluation of the Fuel Saving Potential using High Resolution MetOcean Forecasts and Detailed Ship Performance Models
- 09:05h Volker Bertram (DNV GL)

Added Power in Waves – Time to Stop Lying (to Ourselves)

- 09:30h Eva Herradón de Grado (Siport21), <u>Volker Bertram</u> (DNV GL) Predicting Added Resistance in Wind and Waves Employing Artificial Neural Nets
- 09:55h Mark Bos (BMT Smart)

How MetOcean Data Can Improve Accuracy and Reliability of Vessel Performance Estimates

10:20h coffee break

Chair: Solonen, Vesteinsson

10:50h Thilo Dückert (DNV GL)

Computing Hull & Propeller Performance: Ship Model Alternatives and Data Acquisition Methods

11:15h Tsuyoshi Ishiguro (Japan Marine United Corporation)

Verification of Full-Scale Vessel's Performance under Actual Sea by On-Board Monitoring System: A Shipbuilder's View

11:40h Falko Fritz (Skysails)

Practical Experiences with Vessel Performance Management and Hull Condition Monitoring

12:05h Erik Hagestuen (Kyma)

Continuous Performance Monitoring – A Practical Approach to the ISO 19030 Standard

12:30h lunch

Nebbiolo wine risotto with red chicory, raisins and foie gras sauce Hazelnut parfait

Chair: Krapp, Dückert

14:00h Michael Haranen, et al.(Napa)

White, Grey and Black Box Modelling in Ship Performance Evaluation and Prediction

- 14:25h <u>Wojciech Gorski</u> (Enamor) Role of Reference Model in Ship Performance Management
- 14:50h <u>Charles Badoe</u>, Alexander Phillips, Stephen Turnock (Univ. Southampton) Importance of Hull-Propeller-Rudder Interaction for Ship Powering Assessment
- 15:15h <u>Michel Visonneau</u>, et al. (Ecole Centrale de Nantes) *High-Fidelity Computational Analysis of an Energy Saving Device at Model and Full Scale*

15:40h coffee break

19:00h Dinner (medieval banquet) sponsored by Jotun

Dress code: casual

Buffet: Holiday bread, onion cake, orange flavoured vegetable rolls, Templar pie with cherry tomatoes and fresh cheese, chestnut canapés, honey & speck, bread & cabbage pie

Served at table: Cornmeal mush with sausage and black pepper, "Castle" ravioli with pork ragout, Wine cooked ox with cornbread croutons Dessert buffet: Chocolate and pear cake, Parfaits, Nuts crepes and pear syrup, Castle pastry