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- Dr. Matteo Diez (CNR-INM, Italy)
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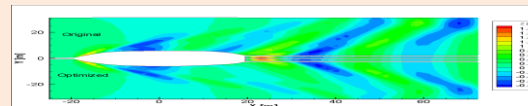
- Assoc.Prof. D. Bülent Danişman (Chair)
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Colloquium Sponsors:



Prof. A. Yücel ODABAŞI (1945-2009)

Professor Odabaşı, a graduate of ITU (1967), earned his Ph.D. degree from the same university in 1971. Following his Ph.D., he joined Strathclyde University where his work on the application of Lyapunov's theory to ship stability gained him a well-deserved international reputation which was acknowledged by STAB Award in 2012 post mortem. In 1974 he joined BSRA where he worked on every field of ship hydrodynamics and made significant contributions, in particular in the field of wake scaling. In 1988 he moved to USA to set up BMT International as its first director and CEO. He returned to ITU-Turkey in 1991 where he inspired a generation of young academicians while at the same time succeeding to lead Turkish Lloyd to worldwide recognition. He was awarded the gold medal of NECIES-UK and numerous awards from NAVSEA, SNAME and BSRA.



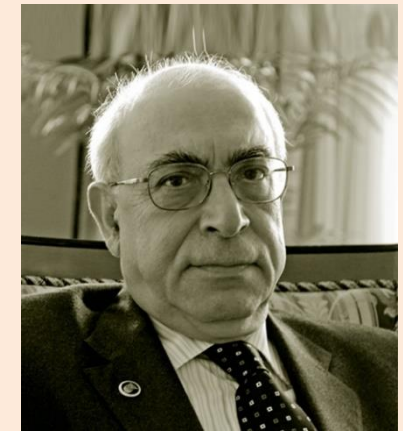
A.Yücel ODABAŞI Colloquium Series

4th International Meeting

Ship Design & Optimization and Energy Efficient Devices for Fuel Economy

15-16 December 2022

*Istanbul Technical University
Faculty of Naval Architecture and Ocean Engineering*



Programme

15 December 2022, Thursday

- 08:30 **Registration**
- 09:15 **Opening and Welcoming Address**
Session 1 – Chair: E. Korkut
- 09:30 **A. Papanikolaou** *Keynote Address 1: Holistic Approach to Ship Design*
- 10:30 **Coffee Break**
- Session 2 – Chair: A. Papanikolaou**
- 11:00 **K. Mizzi, M.Z. Munro, A. Gurkan, B. Aktas, M. Atlar, N. Sasaki:** *The Performance Prediction and Energy Saving Evaluation for the Retrofit of a Gate Rudder System on a General Cargo Vessel using CFD Procedures*
- 11:25 **M. Kraskowski:** *Computational Optimization of the Ship Hull Shape by Constrained Transformation of the Longitudinal Volume Distribution*
- 11:50 **S. Özsayan, Ç. Aydın, Ç.S. Köksal, E. Korkut:** *A Systematic Optimisation on the Energy Saving Devices for Ship, in Particular, Combination of Pre-Swirl Stator (PSS) and Duct*
- 12:15 **H. Pehlivan-Solak, D.B. Danişman, Ö. Gören:** *Assessing the Performance of Kriging and Artificial Neural Network in Simulation-Based Design Optimization*
- 12:40 **Lunch Break**
- Session 3 – Chair: M. Felli**
- 13:45 **K. Rozhdestvensky** *Keynote Address 2: Ship Propelled by Waves: A Mathematical Model of a Ship with Wings Powered by Waves*
- 14:45 **A. Piekło, A. Witkowska, T. Zubowicz:** *Power Efficient Thrust Allocation Algorithms in Design of Dynamically Positioned Ships*
- 15:10 **Ç.S. Köksal, B. Aktas, A.Y. Gurkan, E. Korkut, N. Sasaki, M. Atlar:** *Experimental Powering Performance Analysis of M/V ERGE in Calm Water and Waves*
- 15:35 **Coffee Break**

15 December 2022 - continued

- Session 4 – Chair: K. Rozhdestvensky**
- 16:00 **M. Akman and S. Ergin:** *Greener Shipping: An investigation of an ORC-Based Waste Heat Recovery System for a Methanol-Fueled Marine Engine*
- 16:25 **M. Kültür, S. Gökçay, A. Z. Saydam, M. İnsel:** *Low Cavitation Twisted Rudder Design for DTMB 5415 Surface Combatant*
- 16:50 **S. Gökçay, A.Z. Saydam, G.N. Küçüküsu, M. İnsel:** *Data-Driven Fuel Consumption Rate Estimation by Using Deep Learning*
- 19:30 **Colloquium Dinner (55 EUR/1100 TL; please confirm your participation to the Colloquium Secretariat before Dec. 15th, 2022)**

16 December 2022, Friday

- Session 5 – Chair: M. Atlar**
- 09:30 **M. Diez** *Keynote Address 3: Design-Space Dimensionality Reduction in Shape Optimization: Recent Developments and Way Forward*
- 10:30 **C. Çelik, S. Özsayan, Ç.S. Köksal, D.B. Danişman, E. Korkut, Ö. Gören:** *On the Full-Scale Powering Extrapolation of Ships with Gate Rudder System*
- 10:55 **Coffee Break**
- Session 6 – Chair: M. Diez**
- 11:30 **R. Ravenna, R. Ingham, S. Song, C. Johnston, C.M. Muscat-Fenech, T. Tezdogan, M. Atlar and Y.K. Demirel:** *Predicting the Effect of Hull Roughness on Ship Resistance Using a Fully Turbulent Flow Channel and CFD*
- 11:55 **M. Cocard, S. Day, T. Tezdogan, M. Troll and T. Sant:** *The Effect of the Addition of Tubercles on the Performance of Moth-T-foil*

16 December 2022 - continued

- 12:20 **A. Gürkan, B. Aktas, O. Ünal, M. Atlar:** *Investigation of Gate Rudder Blade Design for Ship Powering Using the Design of Experiment (DoE) Method*
- 12:45 **Adjourn and Lunch**

CONTACT INFORMATION

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REGISTRATION

Colloquium is open to all interested researchers and academicians. **Registration is free for all participants, but all those attending the Colloquium must register** via <http://www.ayocol.itu.edu.tr> using the link **EasyChair** (for authors) or via e-mail: ayocol@itu.edu.tr (other than authors.) Participants registered will be provided Colloquium Proceedings. Lunch and coffee breaks will also be provided free of charge. The papers will be presented in person. There will be an on-line platform for those who wish to follow the presentations from away.

VENUE

Colloquium will be held on 15 – 16 December 2022 at Istanbul Technical University (ITU), Faculty of Naval Architecture and Ocean Engineering, Ayazaga Campus, Maslak, Istanbul, Turkey. Please see (for the map): <https://www.itu.edu.tr/en/contact> and for the metro line: <https://www.metro.istanbul/en/YolcuHizmetleri/AgHartalari>