ISSW 2025 Programme

20th International Ship Stability Workshop - ISSW 2025

Chania, Greece – 1st to 3rd October 2025

Porto Platanias Beach, Resort & Spa

The venue is shared with the IMAM 2025 Congress (28 September – 3 October 2025), and all social events will be held jointly. A single Welcome Reception will take place on Sunday, 28 September (the evening before the official opening of the IMAM 2025 Congress) at 19:30 on the Roof Garden, where ISSW 2025 participants are welcomed.

Time	Wednesday October 1st 2025
12:45 - 19:00	Cultural tour Visit to Agia Triada Tsagarolon Monastery & Winery and to Archeological site of Aptera

Time	Thursday October 2nd 2025
08:15 - 08:30	**ISSW Opening Ceremony**
08:30 - 10:30	**ISSW Session 1: Studies on roll dynamics (Iris)** *Organised by Luis Perez Rojas and Toru Katayama*
08:30 – 09:00	Numerical investigation of avoiding parametric roll resonance through acceleration and deceleration *by Hasan Islam Copuroglu, Emre Pesman & Toru Katayama*
09:00 – 09:30	Experimental investigation of the effect of wave steepness on a damaged Ro-Pax ship model in regular waves *by Mehmet Zeki Sener, Hyeon Kyu Yoon, Thi Thanh Diep Nguyen & Ercan Kose*
09:30 – 10:00	Effects of forward speed on bilge-keel roll damping *by Naofumi Yoshida, Hasan Islam Copuroglu & Toru Katayama*
10:00 – 10:30	An investigation of viscous effects on roll damping of different scaled ships *by Nguyen Thi Ha Phuong, Tomoki Taniguchi & Toru Katayama*
10:30 - 11:00	Coffee break (Mironi Hall)

Time	Thursday October 2nd 2025 *(Continued)*
11:00 - 13:00	**ISSW Session 2: Damage stability (Iris)** *Organised by Dracos Vassalos and Hendrik Bruhns*
11:00 – 11:30	Bottom damage stability issues of hopper dredgers *by Arie de Jager*
11:30 – 12:00	Alternative crashworthy ship designs for enhancing safety and environmental performance *by Dracos Vassalos, Francesco Mauro & Jeom Kee Paik*
12:00 – 12:30	A rational framework for life-cycle damage stability and flooding risk management of passenger ships *by Dracos Vassalos & Francesco Mauro*
12:30 – 13:00	Stochastic dynamic analysis of a damaged vessel capsizing in random beam seas by path integration method *by Jianwen Duan, Ning Ma, Qiqi Shi & Jinya Zhang*
13:00 - 14:00	Lunch (Main restaurant – 1st floor)
14:30 - 16:00	**ISSW Session 3: Stability and safety of special vessels (Iris)** *Organised by Gabriele Bulian, Ning Ma and Igor Backalov*
14:30 – 15:00	*Three papers presented sequentially, each followed by a 5-minute Q&A* Floating crane operations, where the IMO rules are dropping the load *by René van den Heuvel & Luuk van der Linde* Dynamic stability of helicopters floating in waves *by Simon Tödter, Jens Neugebauer, Ould el Moctar & Thomas E. Schellin*
15:00 – 15:30	Damage stability assessment of large inland passenger ships using time-domain flooding simulations *by Milica Vidić, Nathalie Reinach, Igor Bačkalov & Marcos Míguez González*
15:30 – 16:00	*General discussion on the three papers of the session*
16:00 - 16:30	Coffee break (Mironi Hall)

Time	Thursday October 2nd 2025 *(Continued)*
16:30 - 18:00	**ISSW Session 4: Probabilistic methods to ship stability and safety (Iris)** *Organised by Alexander Degtyarev and Vadim Belenky*
16:30 – 17:00	Comparison of the critical wave groups method with different extrapolation approaches for direct stability assessment in waves *by Kevin M. Silva & Kevin J. Maki*
17:00 – 17:30	Statistics of parametric roll in irregular waves *by Reint Dallinga & Rob Grin*
17:30 – 18:00	Prediction of parametric roll of containership in regular and irregular waves using machine learning technique *by Jaehak Lee & Yonghwan Kim*
18:45 - 23:00	Visit to Chania Old Venetian Harbor and Optional Visit to Maritime Museum (permanent exhibition) followed by Gala dinner at Sailing Club

Time	Friday October 3rd 2025
08:30 - 10:30	**ISSW Session 5: Mathematical modeling and dynamics (Danai)** *Organised by Kostas Spyrou and Ermina Begovic*
08:30 – 09:00	*Four papers presented sequentially, each followed by a 5-minute Q&A* On the usefulness of surf-riding experiments conducted at a towing tank with limited capacity *by Michał Struk & Przemysław Krata*
09:00 – 09:30	Revisiting the basic model of broaching-to *by Vadim Belenky & Kostas Spyrou* Eliciting the bifurcation structure of cumulative broaching *by Vicky Margari & Kostas Spyrou*
09:30 – 10:00	Assessment and mitigation of motion instabilities of a towed barge: Phase I *by Mohammed Islam, Trevor Harris, Dong Seo, Kent Brett, Thomas Hall & Kevin L Krasulak*
10:00 – 10:30	*General discussion on the four papers of the session*
10:30 - 11:00	Coffee break (Mironi Hall)

Time	Friday October 3rd 2025 *(Continued)*
11:00 - 13:00	**ISSW Session 6: Design and operational safety (Danai)** *Organised by Jan Otto de Kat, Dimitris Konovessis and Marcos Míguez González*
11:00 – 11:30	Estimation of the natural roll period of a large containership from ship motion observed during voyages *by Yuhei Higo, Ryo Chikamori, Hirotada Hashimoto, Yusuke Yamamoto, Yoriyuki Masutani & Akihiko Matsuda*
11:30 – 12:00	Application of a stability monitoring system to naval vessels *by Lucía Santiago Caamaño, Ismael Díaz González & Marcos Míguez González*
12:00 – 12:30	Safe Return to Port 2010-2025, the revolution in passenger ship design *by Alessandro Maccari*
12:30 – 13:00	Naval architecture emergency response for UK naval ships – lessons learned *by Morgan Griffiths & Olgun Hizir*
13:00 - 14.30	Lunch (Main restaurant – 1st floor)
14:30 - 16:00	**ISSW Session 7: Application experience with the second generation intact stability criteria and possible regulatory updates (Electra)** *Organised by Naoya Umeda and William Peters*
14:30 – 15:00	Possible influence of the IACS Rec. No. 34 Rev. 2 on the second generation intact stability criteria *by Takako Kuroda & Masahiro Sakai*
15:00 – 15:30	Proposal of simplified operational guidance on parametric rolling and pure loss of stability and its validation using the fully probabilistic operational guidance *by Masahiro Sakai, Soichiro Okamoto, Mayu Takaya, Akihiro Oka & Naoya Umeda*
15:30 – 16:00	Discussion to self-repeating effect in reconstruction of irregular waves for direct stability assessment *by Naoya Umeda, Yuuki Maruyama, Vadim Belenky & Kenneth Weems*
16:00 – 16:30	Coffee break (Mironi Hall)

Time	Friday October 3rd 2025 *(Continued)*
16:30 - 18:00	**ISSW Session 8: Emerging technologies and impact on stability and safety (Electra)** *Organised by Frans van Walree, Nikos Themelis and Sam Edwards*
16:30 – 17:00	Development of an infinite element for deep-water waves for ultra-fast modeling of water wave problems *by Justin M. Harler & Arthur M. Reed*
17:00 – 17:30	Development of an onboard machine learning based early warning system for dynamic ship stability loss after damage *by Bart Mak, Thomas P. Scholcz & Riaan van 't Veer*
17:30 – 18:00	Uncertainty-aware decision support for real-time damage stability assessment in maritime emergencies *by Panagiotis Louvros, Evangelos Stefanou, Nay Min Htein, Evangelos Boulougouris & Dracos Vassalos*
18:00 - 18:15	**Closure of ISSW 2025 (Electra)**