

STAB 2018

Stability of Ships and Ocean Vehicles

13th International Conference

DfS 2018

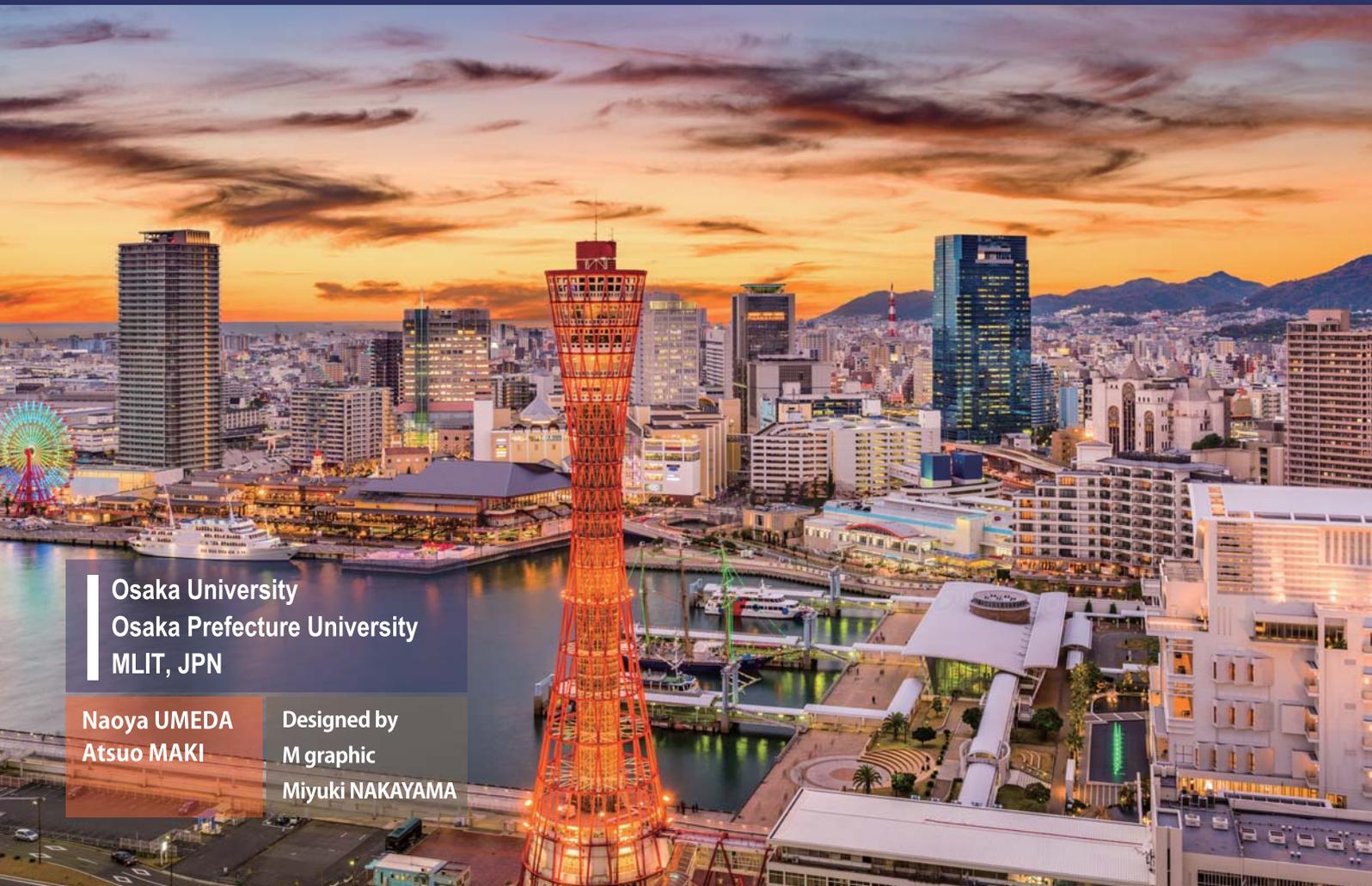
Design for Safety

7th International Maritime Conference

Kobe, Japan

16-21 September 2018

 Programme



Osaka University
Osaka Prefecture University
MLIT, JPN

Naoya UMEDA
Atsuo MAKI

Designed by
M graphic
Miyuki NAKAYAMA

Schedule Change in the Printed Version

As of 9/11/2018

Regarding the schedule in STAB2018 and Dfs2018, that we have informed you previously, has been changed. Now the revised points are shown as follows. We appreciate your patience. Thank you for your kind understanding.

On Monday-Friday (except Thursday)

Sponsored Lunch place is changed from the 5th floor to the **2nd floor** of Ariston Hotel Kobe.

On Monday

SRDC Meeting (18:00 -20:00) is shifted to Tuesday.

On Tuesday

SRDC Meeting (17:15 -20:15) is held on Tuesday.

On Friday

Keynote Lecture from DNVGL (09:30 -10:00) is canceled.

Keynote Lecture from Dr. Makino (09:30 -10:00) on Kansai airport bridge accident is held.

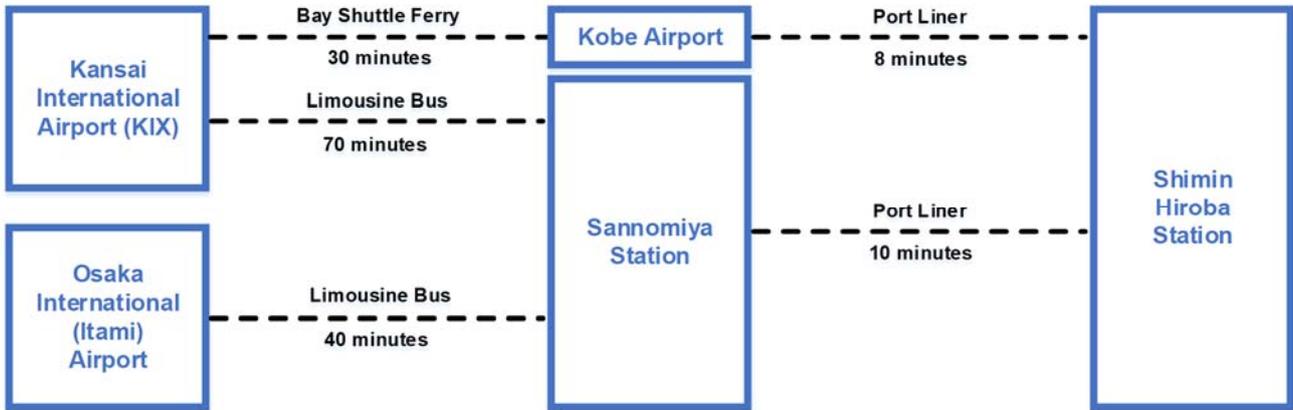
Naoya UMEDA

Osaka UNIVERSITY
Department of Naval Architecture
and Ocean Engineering
565-0871
2-1 Yamadaoka, Suita, Osaka
tel. +81-9-6879-7587
fax +81-9-6879-7594

STAB 2018 and DfS 2018 CONFERENCE VENUE & ACCOMMODATION

HOW TO REACH THE VENUE

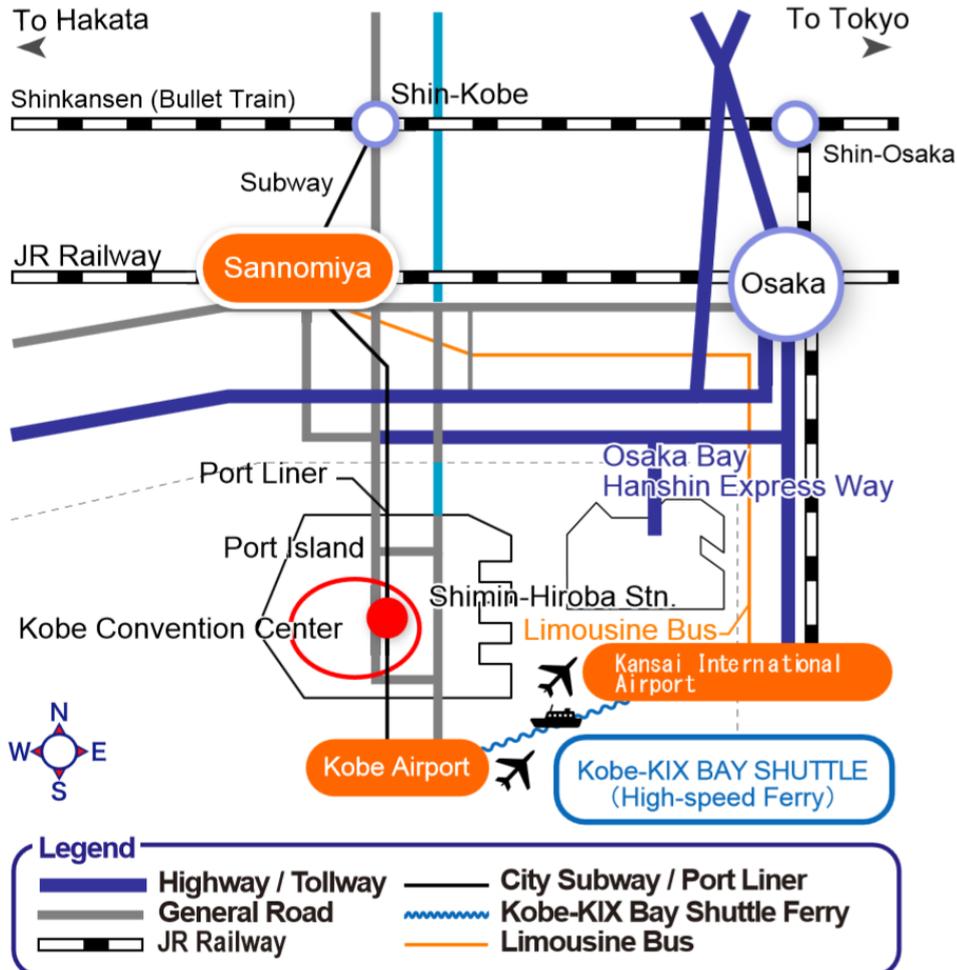
From the Kansai International Airport (KIX) or Osaka International Airport



By Shinkansen



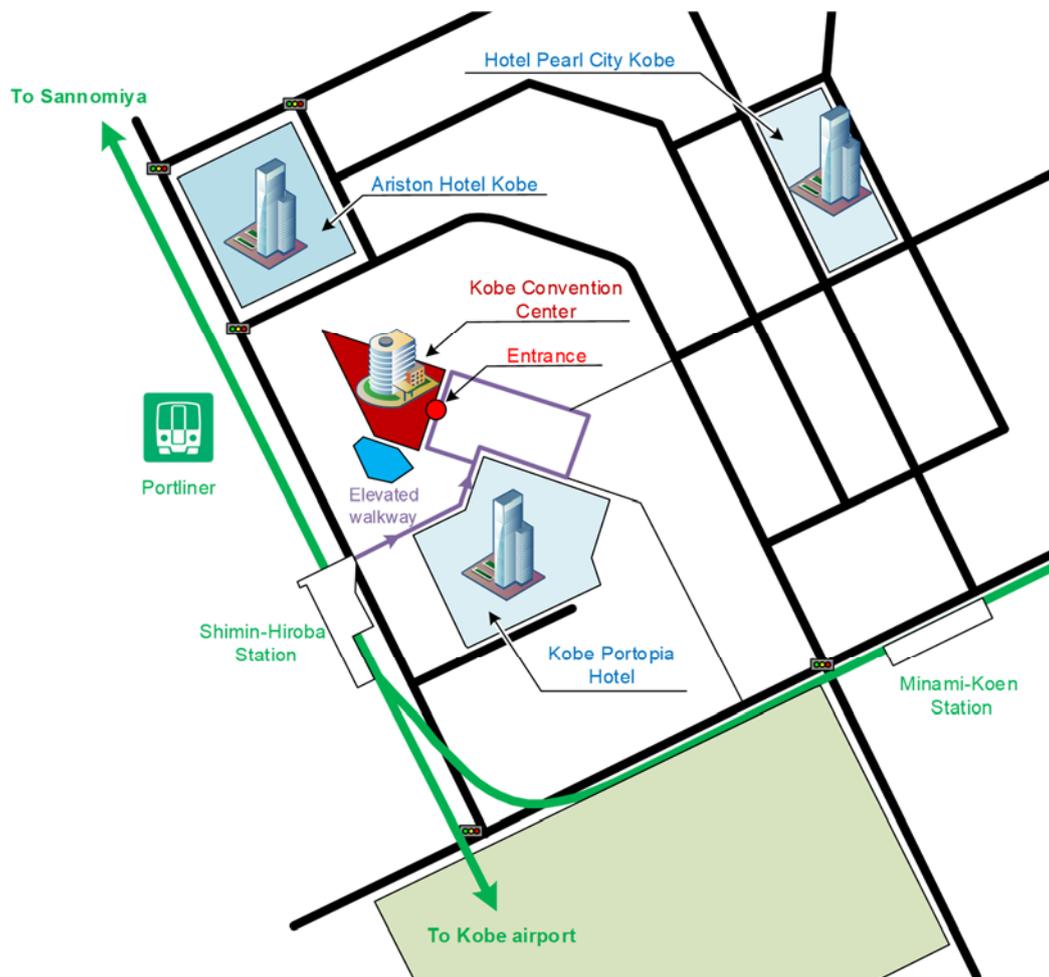
Access Map from Sannomiya or Osaka main area to Shimin-Hiroba station



Railway Map of Port Liner



Access Map from Shimin-Hiroba station to Venue & Hotel



VENUE



Kobe Convention Center

Minatojimanakamachi, 6-11-1, Chuo-ku, Kobe-shi, Hyogo,
650-0046, Japan
TEL +81-78-302-1020
FAX +81-78-302-1870

ACCOMMODATION



Kobe Portpia Hotel

Minatojimanakamachi, 6-10-1, Chuo-ku, Kobe-shi, Hyogo,
650-0046, Japan
TEL +81-78-302-1111
FAX +81-78-302-6877



Ariston Hotel Kobe

Minatojimanakamachi, 6-1, Chuo-ku, Kobe-shi, Hyogo,
650-0046 Japan
TEL.+81-78-303-5555
FAX.+81-78-303-5560



Hotel Pearl City

Nakamachi, Minato-jima, 7-5-1, Chuo-ku, Kobe-shi, Hyogo,
650-0046, Japan
TEL +81-78-303-0100
FAX +81-78-303-0211

Exchange 両替のご案内

両替は、各線三宮駅前の三井住友銀行でご利用いただけます。
 Currency exchange from Sumitomo Mitsui Banking Corporation
 (in front of Sannomiya Stn.)

Weekdays : 11:00 - 19:00 Weekends&Holidays : 9:00 - 17:00
 Phone : 291-0070 from inside KOBE



ポートライナー「市民広場(コンベンションセンター)駅」から会議場・展示場へは回廊で直結。雨にぬれずに移動が可能です。
 Covered walkway connects the portliner Shimin Hiroba station to the conference center and exhibition hall (No.1) both ways.



Area Map (Central Port Island)

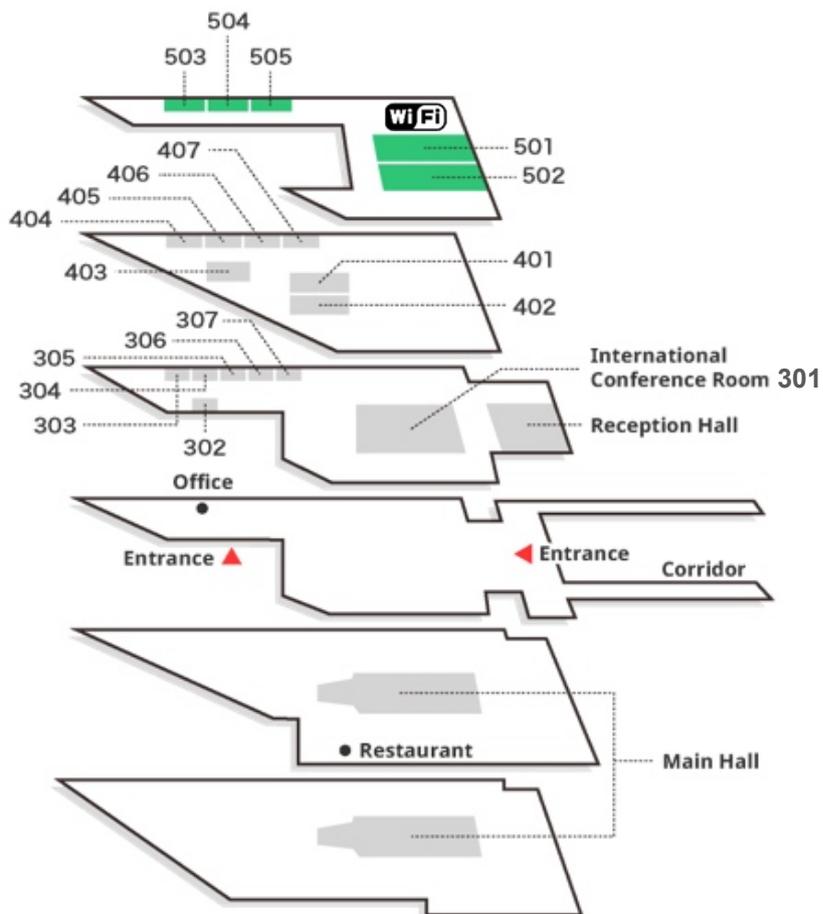
周辺エリアマップ

コンベンションセンターの周囲では、ライフサイエンスの研究・開発拠点やスーパーコンピューター「京(けい)」の整備が進んでいます。メディカルクラスターを目指すポートアイランドで、学術等さまざまな分野での交流が期待できます。

Medical institutions converge on the adjacent area as the life-science research and development is progressing. The next generation super-computer, "K computer" also kicks into full gear on the same island. Aiming at "Medical Cluster", Kobe Port-island is the best place to exchange diverse information and knowledge. Enjoy this great networking lounge for your future meeting or event.

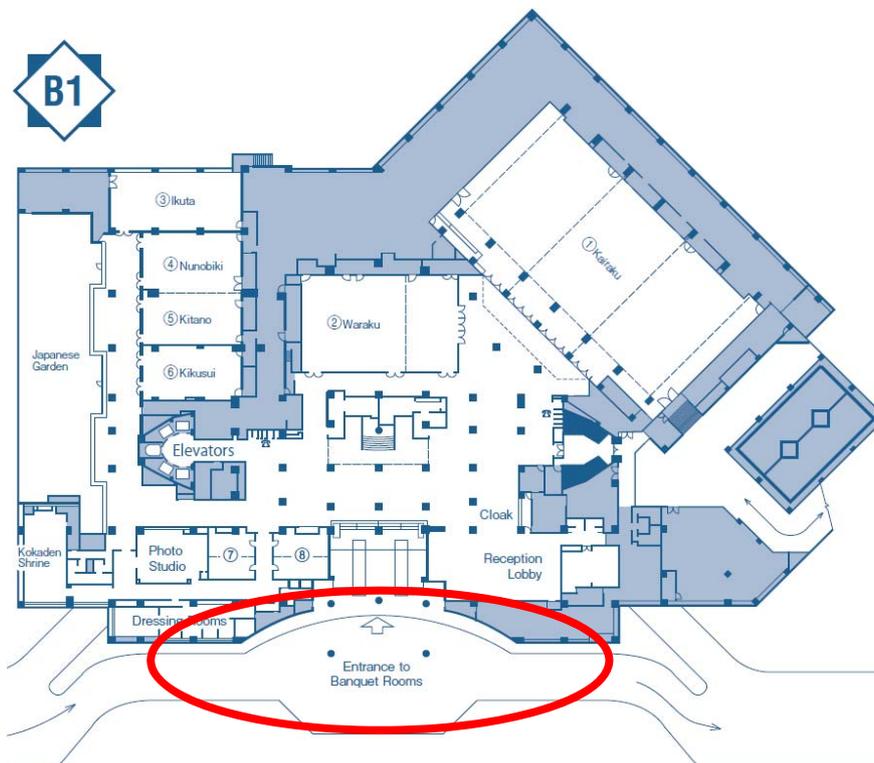


FLOOR GUIDE (KOBE CONVENTION CENTER)



MEETING PLACE FOR CONFERENCE DINNER AND TOUR

The conference dinner will take place on September 19th. The cultural tour to Kyoto and Rokkosan-Mt will take place on September 20th. For these events, bus services will be available to all the participants registered with payment. It is requested to get together at the entrance to the Banquet rooms, ***Kobe Portpia Hotel***.



REGISTRATION

Registration desk will be open as follows:

Day	Time	Place
Sunday (16 th)	16:00-19:00	Entrance of reception place in Kobe Ariston Hotel
Monday (17 th)	08:00-12:00	Entrance of Room 301 in Kobe Convention Center
Tuesday (18 th)	09:00-11:00	Room 503 in Kobe Convention Center
Wednesday (19 th)	09:00-11:00	Room 503 in Kobe Convention Center
Friday (20 th)	11:00-12:00	Room 503 in Kobe Convention Center

Wi-Fi Connection Service at Kobe Convention Center

Wi-Fi connection service is available on the 5th floor of Kobe Convention Center

ID: STABDfs2018

PW: kobe2018

REGULAR AND STUDENT PARTICIPANTS PROGRAM

Regular and student participants registered with payment are invited to the following events:

All Technical Sessions, Opening and Closing	Reception (Sunday)	Lunch
Coffee Break	Conference Cruise Dinner (Wednesday)	Kyoto Tour (Thursday)

ACCOMPANYING PERSON PROGRAM

Accompanying persons registered with payment are invited to the following events:

Reception (Sunday)	Kobe Tour (Tuesday)
Conference Cruise Dinner (Wednesday)	Kyoto Tour (Thursday)

IMPORTANT NUMBERS

Emergency numbers:

Police: **110**

Medical Emergency and Ambulance: **119**

Fire Department: **119**

The Local Organising Committee (STAB2018)

Prof. N. Umeda (Chairman)	Osaka Univ.
Prof. T. Katayama	Osaka Pref. Univ.
Dr. H. Hashimoto	Kobe Univ.
Mr. J. Hirata	Class NK
Mr. A. Ishihara	Maritime Bureau, Japanese Govt.
Mr. Y. Mori	Maritime Bureau, Japanese Govt.
Dr. A. Maki (Secretary)	Osaka Univ.
Mr. A. Matsuda	NRIFE
Dr. D. Terada	Nat. Defense Academy, Japan
Dr. H. Taguchi	NMRI
Dr. T. Kuroda	NMRI

The Local Organising Committee (DfS2018)

Prof. N. Umeda (Chairman)	Osaka Univ.
Prof. M. Fujikubo (Co-chairman)	Osaka Univ.
Prof. T. Katayama	Osaka Pref. Univ.
Dr. K. Iijima	Osaka Univ.
Dr. H. Hashimoto	Kobe Univ.
Mr. J. Hirata	ClassNK
Mr. A. Ishihara	Maritime Bureau, Japanese Govt.
Mr. Y. Mori	Maritime Bureau, Japanese Govt.
Dr. A. Maki (Secretary)	Osaka Univ.
Mr. A. Matsuda	NRIFE
Dr. D. Terada	Nat. Defense Academy, Japan
Dr. H. Taguchi	NMRI
Dr. T. Kuroda	NMRI

STAB and DfS 2018 Free Wi-Fi 

Wi-Fi connection service is available on the 5th floor of Kobe Convention Center

ID: **STABDfS2018**

PW: **kobe2018**

STAB 2018 and DfS 2018 Program

Time / Day	Sunday (16 Sept.)	
15:00 - 17:00	STAB ISC Meeting at Kobe Convention Center Room 406	
17:00 - 18:00	Registration at the entrance to BARCELONA (16th Floor) in Ariston Hotel Kobe	
18:00 - 20:00	Welcome reception at BARCELONA (16th Floor) in Ariston Hotel Kobe	

Time / Day	Monday (17 Sept.)		
Room	Room 502 	Room 504-505 	Room 501 
08:30 - 09:30	Registration at the entrance to Room 301 (Kobe Convention Center)		
09:30 - 10:00	International Conference Room 301		
	STAB 2018 Opening by K. Spyrou DfS 2018 Opening by D. Vassalos (Chair: F. van Walree and N. Umeda)		
10:00 - 10:30	Coffee break at the 3rd floor lounge		
10:30 - 11:20	Welcome Address (Chair: N. Umeda) by T. Tanaka (OU, JPN), by M. Tatsumisago (OPU, JPN), by S. Ohtsubo (MLIT, JPN) and by H. Deggim (IMO)		
11:20 - 12:15	Keynote Lectures (Chair: M. Fujikubo) Enhancing Ship Safety Using Digital Platform by H. Takano (Class NK) Future Trends and How to Collect/Use Data For Development of Rules/Standards By T. Arima (Class NK)		
12:15 - 12:30	Group Photo outside Kobe Convention Center		
12:30 - 14:00	Lunch sponsored by RESONIC JAPAN on the 2nd floor of Ariston Hotel Kobe		

Room	Room 502 	Room 504-505 	Room 501 
14:00 - 15:30	S 1. Historical Reviews Chaired by Y. Ikeda		D 1. Ship Design Chaired by T. Arima
	Contributions related to the class of 1982 1 Model Experiments carried out by Prof. Seizo Motora on the Disaster of the Train Ferry "Toya Maru" Naoji Toki		Hazard Identification Study of Liquefied Hydrogen Carrier Koichi Nishifuji
	2 Capsize of a torpedo boat in following waves in 1930' Atsuo MAKI et al.		Risk-Based Preliminary Design of Containerships Xiang Tan et al.
	An overview of the current research on stability of ships and ocean vehicles Nikolaos Themelis et al.		Safe Design of Workboats - A Case Study Govinder Singh Chopra
15:30 - 16:00	Coffee break at the 5th floor lounge		
16:00 - 17:30	S 2. Manoeuvring (STAB) Chaired by H. Hashimoto	S&D 1. Probability (1) Chaired by K. Maki	S&D 2. Damage Stability (1) Chaired by D. Knonovesis
	Mathematical Models of Maneuvering in Waves: Historical Perspectives and the State of the Art Arthur M. Reed and Robert F. Beck	Approximation of capsizes probability using a Roll Exceedence (RE) probability with a threshold chosen in roll phase plane Romain Macé et al.	Application of Flooding Simulation for a Detailed Analysis of SOLAS Damage Stability Results Daniel Lindroth et al.
	Generation of Hydrodynamic Derivatives for ONR Topside Series Using Computational Fluid Dynamics Kevin M. Silva and Shawn Aram	The effects of Hullform Geometric change on probability of Capsizes Andrew Peters and Charles Pope	Study on the Floodwater Dynamics and its Effects on the Damaged Ship Motion Shuxia Bu et al.
	Numerical prediction of roll motion during ship turning using CFD-System based method Haipeng Guo et al.		Risk-based positioning of Flooding Sensors to reduce Prediction Uncertainty of Damage Survivability Kristian Bertheussen Karolius et al.
18:00 - 20:00	STAB & DfS ISC Meeting		

Time / Day	Tuesday (18 Sept.)			
Room	Room 502 	Room 504-505 	Room 501 	
09:00 - 09:30		Keynote Lecture History of Ikeda's roll Damping Prediction method by Y. Ikeda (Chair: D. Vassalos)		
09:30 - 10:00	S 3.1. 2nd Generation Intact Stability Criteria (1) Chaired by F. van Walree	S 3.2 Roll Damping (1) Chaired by T. Katayama		
	Improvement of Broaching Prediction Method by System Identification Using CFD Kentaro Mizumoto et al.	Determination of Roll Damping for Empirical Measurements Timothy Smith		
10:00 - 10:30	CFD prediction of wave-induced forces on ships running in irregular stern quartering seas Hirotsada Hashimoto et al.	Ship Roll Damping Estimation: A Comparative Study of Different Roll Decay Tests Adriana Oliva-Remola et al.	D 2. Structure (1) Chaired by A. Tatsumi	
			Fatigue Damage Assessment Based on Actual Sea State Estimated from On-board Monitored Data Tomoki Takami et al.	
10:30 - 11:00	Coffee break at the 5th floor lounge			
11:00 - 12:30	S 4.1. 2nd Generation Intact Stability Criteria (2) Chaired by J. O. deKat	S 4.2. Roll Damping (2) Chaired by L. Pérez-Rojas	D 3. Structure (2) Chaired by T. Okada	
	Effect of Propeller Thrust Reduction on Ship Surf-riding/Broaching Prediction Tinghao Wang et al.	Numerical Study on the Scale Effect of Ship Roll Damping Min Gu et al.	Consequence Analysis of VLFS Collapse to Heavy Sea Loads Kazuhiro Iijima et al.	
	On the direct assessment of broaching-to vulnerability of a high speed craft Matteo Bonci et al.	Accelerated HERM Technique by Induced Artificial Damping for Efficient Ship Roll Damping Estimation Sven Wassermann et al.	Ultimate Strength Analysis of Structures Considering Effect of Welding Distortions and Residual Stresses Kazuki Ikushima et al.	
	Validation of a Time Domain Panel Code for Predicting the Behaviour of a RHIB Towed Alongside a Patrol Boat Frans van Walree et al.	Some remarks on EFD and CFD for ship roll decay Hirotsada Hashimoto et al.	Ultimate Longitudinal Bending Strength of Container Ship Considering the Effect of Bottom Local Loads and its Simplified Estimation Akira Tatsumi et al.	
12:30 - 14:00	Lunch sponsored by ABS on the 2nd floor of Ariston Hotel Kobe			

Room	Room 502 	Room 504-505 	Room 501 
14:00 - 15:30	S 5.1. 2nd Generation Intact Stability Criteria (3) Chaired by N. Ma	S 5.2 Roll Damping (3) Chaired by T. Smith	D 4. Structure (3) Chaired by K. Ikushima
	Capsizing phenomena due to water on deck with stern trim fishing vessel Akihiko Matsuda et al.	Characteristics of Bilge-keel Roll Damping Component for Shallow Draft Toru Katayama et al.	Reliability Assessment and Optimization for Ultimate Strength of Ultra Large Container Ships: A Case Study Zuyuan Zheng et al.
	Water-on-Deck Effects on Roll Motions of an Offshore Supply Vessel in Regular Stern Quartering Waves Su Sandy Htun et al.	Rudder influence on roll damping estimation Patrick Sumislawski et al.	Structural Reliability Analysis of Hull-Girder Collapse of Container Ship Considering the Effects of Bottom Local Loads Rikako Aramaki et al.
	Investigation of the Effect of Parametric Variation on the Pure Loss of Stability Criteria Tianhua Wang et al.	Roll Damping Estimation for Small Planing Craft Toru Katayama et al.	
15:30 - 16:00	Coffee break sponsored by NAPA Japan at the 5th floor lounge		
16:00 - 17:00	S 6. 2nd Generation Intact Stability Criteria (4) Chaired by H. Taguchi	S&D 3. Probability (2) Chaired by J. Leguen	D 5. Manoeuvring (DfS) Chaired by E. Vanem
	Experimental and Numerical Study on Standard Mathematical Model for Pure Loss of Stability Jiang Lu et al.	Non-Gaussian PDF of ship roll motion in irregular beam sea and wind conditions -Comparison between theory and experiment- Atsuo Maki et al.	Probabilistic analysis of container ship course keeping failure under environmental loads in a channel Han Liu et al.
	Empirical and experimental roll damping estimates for an oil tanker in the context of the 2nd generation intact stability criteria Mauro Costa de Oliveira et al.	A Method for the Prediction of Extreme Roll Suitable for Nonlinear Time-Domain Realization Wenzhe Xu and Kevin J. Maki	Minimum Propulsion Power Prediction of a Ship under Adverse Weather Conditions with Dynamics of Diesel Engine and Turbocharger Taken into Account Myo Zin Aung and Naoya Umeda
18:00 - 20:00		SRDC Meeting (17:15 - 20:15)	STAB ISC Meeting

A tour only for accompanying persons registered with payment will leave Kobe Portpia Hotel (B1F:see pg. 6) at 11am on the 18th September for visiting an old brewery of Japanese Sake, in which Japanese lunch will be provided, and a Japanese garden in Kobe.

Time / Day	Wednesday (19 Sept.) 		
Room	Room 502 	Room 504-505 	Room 501 
09:00-09:30			Keynote Lecture A Holistic View of Design for Safety Dracos Vassalos and Apostolos Papanikolaou (Cahir: A. Francescutto)
09:30-10:30	S 7.1. 2nd Generation Intact Stability Criteria (5) Chaired by M. Schreuder	S 7.2. Roll Motion (1) Chaired by A. Peters	D 6. Risk Chaired by K. Iijima
	Study of the Properties of the Parametric Roll Stochastic Process of a Containership Julio Cesar Polo and Marcelo Neves	Dynamic Stability Analysis including Roll Motion in the Maneuvering Motion for a Damaged Surface Naval Vessel Daehyuk Kim et al.	IF-Risk - a new risk influence model for remote machinery operations in the maritime industry Steinar Låg et al.
	Investigation on IMO Second Level Vulnerability Criteria of Parametric Rolling Clève Wandji	A Solid Bulk Cargo-Sea-Ship Problem: Cargo Liquefaction Lei Ju et al.	Development of accident scenarios by analysis of historical data on ship accidents Tomohiro Yuzui and Fujio Kaneko
10:30-11:00	Coffee break sponsored by NAPA Japan at the 5th floor lounge 		
11:00-12:30	S 8.1. 2nd Generation Intact Stability Criteria (6) Chaired by C. Rodriguez	S 8.2. Roll Motion (2) Chaired by K. Spyrou	D 7. Navigation Chaired by J. Cui
	Variation in Ship Parametric Roll Amplitude with Forward Speed and Heading Angle Hongxia Li et al.	Local stability and bifurcation analysis of the softening Duffing equation by numerical computation Yuu Miino et al.	Seasonal and Omni-Seasonal Environmental Contours for Extreme Sea States Erik Vanem and Arne Bang Huseby
	Free running model experiment and numerical simulation on the occurrence and early detection of KCS parametric roll in head waves Liwei Yu et al.	Characteristics of Roll with Drift at Rest in Regular Beam Waves for Small Planing Craft Toru Katayama et al.	Sea state estimation using measured hull responses on 14,000TEU large container ships Xi Chen et al.
	On the Parametric Resonance of the Deep Draft Semisubmersible using the Partially Non-Linear Time Domain Model Liwei Yu et al.	Experimental Assessment of the Wind Force Impact on the Roll Back Angle Arman ARIFFIN et al.	Systems Approach to Accident Analysis: Engine Room Fire on Cruise Ship "Le Boreal" Romanas Puisa et al.
12:30 - 14:00	Lunch sponsored by Lloyd's Register on the 2nd floor of Ariston Hotel Kobe 		

Room	Room 502 	Room 504-505 	Room 501 
14:00 - 16:00	S 9.1. 2nd Generation Intact Stability Criteria (7) Chaired by V. Belenky	S 9.2. Roll Motion (3) Chaired by J. Matusiak	S&D 4. Damage Stability (2) Chaired by H. Bruhns
	The statistical analysis of the parametric rolling for C11 containership in the irregular wave experiment Shan Ma et al.	Second generation calculation method for use in the inclining experiment Kristian Bertheussen Karolius and Dracos Vassalos	Complementing SOLAS framework with a probabilistic description for the damage extent below water Gabriele Bulian et al.
	Encounter Frequency Effect on the Simplified Design Criteria against Parametric Roll Masahiro Sakai et al.	Calculation of Restoring Moment in Ship Roll Motion through Numerical Simulation S. S. Kianejad et al.	Life-Cycle Flooding Risk Management of Passenger Ships Dracos Vassalos et al.
	A System Approach for Second Generation Intact Stability criteria compliance Nicola Petacco and Paola Gualeni	Quantifying Ship's Dynamic Stability through Numerical Investigation of Weight Distribution Hossein Enshaei and S. S. Kianejad	Rebooting SOLAS –Impact of Draughts on Damage Survivability of Cruise Ships Donald Paterson et al.
	Operational Limitations of River-Sea Ships in the Framework of the Second Generation Intact Stability Criteria Stefan Rudaković and Igor Bačkalov	Motion Characteristics of a Spar-Buoy with Ring-Fin Motion Stabilizer Toru Katayama and Yusuke Yamamoto	
16:00 - 18:00			
18:00	Meet at the entrance of Kobe Portpia Hotel (B1F:see pg.6) 5 minutes before the buses depart		
18:05 - 22:00	<p>Conference cruise dinner</p>  <p>This ship is equipped with a Vec-Twin rudder system, which was manufactured by JAPAN HAMWORTHY</p> 		

Time / Day	Thursday (20 Sept.)	ClassNK
9:00	Meet at the entrance of Kobe Portpia Hotel (B1F:see pg.6) 5 minutes before the tour begins	
9:05	Bus departure at Kobe Portpia Hotel	
	Golden Pavilion (金閣寺)	
	Lunch	
	Byodoin Temple (平等院鳳凰堂)	
	 <p data-bbox="531 1245 999 1279">http://photo53.com/byodoin1.php</p>	
	BBQ (Mt. Rokkosan Genghis Khan Palace)	
	 <p data-bbox="536 1944 762 1977">Photo by Y. MAKI</p>	
	21:30	Bus arrival at Kobe Portpia Hotel

Time / Day	Friday (21 Sept.)			
Room	Room 502 	Room 504-505 	Room 501 	
9:30 - 10:00			Keynote Lecture Kansai Airport Bridge Accident due to a drifting ship induced by Typhoon Jebi Hidenari Makino (Cahir: N. Umeda)	
10:00 - 11:00	S 10.1. 2nd Generation Intact Stability Criteria (8) Chaired by M. Gu	S 10.2. Multi-Hull Vessels Chaired by D. Terada	S&D 5. Probability (3) Chaired by G. Bulian	
	Meta-model assessing the probability of exceeding the allowed acceleration limits, with the use of Bayes networks Tomasz Hinz et al.	Overview of the Development of a Series of Cabin-suspended Ships Governed by Different Motion Control Algorithms Jialin Han et al.	Evaluation of an Improved Critical Wave Groups Method for the Prediction of Extreme Roll Motions Panayiotis A. Anastopoulos and Kostas J. Spyrou	
	Direct Stability Assessment for Excessive Acceleration Failure Mode and Validation by Model Test Takako Kuroda et al.	Influence of Trimaran Geometric Parameters on Intact and Damaged Ship Stability W. Scott Weidle	On Confidence Intervals of Mean and Variance Estimates of Ship Motions Vladas Pipiras et al.	
11:00 - 11:30	Coffee break at the 5th floor lounge			
11:30 - 12:30	S 11.1. Accident Chaired by E. Backalov	S11.2. Monitoring Chaired by E. Boulougouris	S&D 6. Probability (4) Chaired by A. Maki	
	A framework for investigating the potential for operational measures in relation to intact stability Hans Liwång and Anders Rosén	On the applicability of real time stability monitoring for increasing the safety of fishing vessels Marcos Miguez Gonzalez et al.	Extended Fast Ship Motion Simulations for Stability Failures in Irregular Seas Kenneth Weems and Vadim Belenky	
	An Investigation into the Capsizing Accident of a Purse Seiner in Hauling a Fishing Net Harukuni Taguchi and Takako Kuroda	Direct estimation of natural roll frequency using onboard data based on a Bayesian modeling procedure Daisuke Terada et al.	Extreme-Value Properties of the Split-Time Metric Vadim Belenky et al.	
12:30 - 14:00	Lunch sponsored by DNV GL on the 2nd floor of Ariston Hotel Kobe			

Room	Room 502 WiFi	Room 504-505 WiFi	Room 501 WiFi
14:00 - 15:00	Workshop on Second Generation Intact Stability Criteria Chaired by A. Francescutto		
15:00 - 15:30	Coffee break at the 5th floor lounge		
15:30 - 16:00	Closing (Chair: N. Umeda)		

By the time of print, the following organizations were committed to supporting STAB 2018 and DfS 2018:

The Japan Society of Naval Architects and Ocean Engineers

The Shipbuilders' Association of Japan

The Japanese Shipowners' Association

The Cooperative Association of Japan Shipbuilders

Japan Marine Industry Association

Kobe University

National Maritime Research Institute (NMRI)

By the time of print, the following organizations were committed to sponsoring STAB 2018 and DfS 2018:

Main Sponsor

Nippon Kaiji Kyokai (ClassNK)



Sponsors

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Kobe Convention Bureau

Office of Naval Research Global

TSUTOMU NAKAUCHI
FOUNDATION



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STAB 2018 DfS 2018
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