SIMMAN 19

Call for participants for the third SIMMAN workshop

Purpose

The SIMMAN 2019 workshop will be held in Songdo, Incheon, Korea on 9-11 April 2019 and hosted by KRISO. Experts will compare the results of different manoeuvring prediction methods to each other and to model tests. Previous SIMMAN 2008 and 2014 workshops were held in Copenhagen, Denmark and hosted by FORCE.

To predict hydrodynamic loads and trajectories of manoeuvring ships, different methods are available. They range from empirical methods through methods using captive (PMM/CMT) data or methods using CFD. Comparison of the results will reveal insight into their strengths and weaknesses, their variability and scatter. This worldwide comparison and the mutual discussions among experts will aid code development, establish best practices and guide the industry.

New in SIMMAN 2019 are that:

- The captive and free running test cases are reduced so as to maximize the number of submissions for more robust statistical analysis;
- Participants should make submissions for a systematic range of captive test conditions instead of a few spot checks of conditions;
- New free running tests (in shallow water) have been conducted to enable better comparisons;
- As new test cases and challenge, KCS and ONRT turning circles in a regular wave is included; since manoeuvring in waves is also of importance in assessment of manoeuvring prediction capability;
- Each case will have obligated manoeuvres to assure enough submissions.

Participation

The workshop organizers would like broad participation from the ship manoeuvring simulation community. Submitters are required to attend the workshop and represent their submission. Interested participants are encouraged to indicate their interest in the workshop on receipt of this call by filling out the form link needed, which also can be accessed on the website's start page. This form needs to be filled out to get access to the captive data sets and final registration for the workshop must be done on the website.

Test Cases

The test cases will be consist of:

- KVLCC2 in deep water: KVLCC2 is an established tanker ship hull form test case used in previous workshops.
- KVLCC2 in shallow water (Water depth to draught ratio Wd/T=1.2): shallow water test cases are important for assessment of manoeuvring prediction capability
- KCS in shallow water (Wd/T=1.2)
- KCS deep water: is an established container ship hull form test case used in previous workshops and more challenging than KVLCC2 since 4DoF simulations have shown improved accuracy compared with 3DoF.
- ONRT deep water: This is a new benchmark case for manoeuvres, replacing the 5415M. Both are established surface combatant hull form test cases used in previous workshops with twin screw arrangement with struts and rudders.

The asked submissions are summarised in the following table. As illustrated in the table, multiple data sets will be available enabling a comparison between the submissions and model scale measurements.

Before 1-1-2018, the SIMMAN 2019 Steering Committee will select the preferred model scale data set for the comparison and evaluation.

Case	Forces and moments		Trajectories	
	Parameters	Available measurements	Manoeuvres	Available measurements
KVLCC2-deep	range of drift angles and rotation rates up to 20° and up to r'=0.8	Model tests at HMRI and NMRI	20°/20° Zigzag starting to portside (ZZ-PS)	model tests MARIN, HSVA
			10°/10° ZZ-PS	
			35° turning circle starting to PS (TC-PS)	
			20°/20° ZZ –SB	
KVLCC2-shallow	range of drift angles and rotation rates	Model tests at BSHC and FHR	20°/5° (ZZ-PS)	model tests from MARIN and FHR
			35° (TC-PS)	
KCS-shallow	range of drift angles and rotation rates	Model tests from FHR and KRISO	20°/5° (ZZ-PS)	model tests from MARIN and FHR
			35° (TC-PS)	
KCS-deep	range of drift angles and rotation rates up to 20° and up to r'=0.8	Model tests from FORCE, CSSRC, JMU and NMRI	20°/20° ZZ-PS	model tests from MARIN, JMU, IIHR
			10°/10° ZZ-PS	
			35° TC-PS	
			20°/20° ZZ –SB	
			35° TC-PS in head waves: λ/L=1 & H/λ =1/60	
ONRT	range of drift angles and rotation rates up to 15° and up to r'=0.5	Model tests from CSSRC and SNU and MAREC	20°/20° ZZ-PS	model tests from IIHR, CSSRC
			10°/10° ZZ-PS	
			35° TC-PS	
			20°/20° ZZ –SB	
			35° TC-PS in head waves: λ/L=1 & H/λ =1/50	

Venue and time schedule

The schedule for the workshop is provided in the following table. Information can be found on www.simman2019.kr .

Deadline	**Action**
September 2017	Website open with main ideas, test cases and invitation
October 12th 2017	All data and instructions available on website/ftp server.
November 11th 2018	Firm submission deadline: all participants have now submitted trajectories and forces/moments. Data analysis starts.
January 7th 2019	All data is collected and data analysis is completed. The comparison is distributed to the committee members to be able to prepare presentations.
March 11th 2019	Committee sends the comparisons to participants.
April 9th-11th 2019	Workshop

The steering committee looks forward to your participation and welcoming you to SIMMAN 2019.