



# Fourth Joint ISSC/ITTC International Workshop

## Uncertainty modelling in wave description and wave induced responses

14 September 2018

Hotel Zuiderduin, Egmond aan Zee (Amsterdam)

The Netherlands



Organised by the Joint ISSC/ITTC Committee  
With the local support of the ISSC 2018 Conference

## Background

The first ISSC-ITTC workshop was held at ISSC2012 in Rostock, followed by a second one held at ITTC2014 in Copenhagen. The third ISSC-ITTC Workshop took place in Wuxi, China on September 2017.

The success of these workshops on one hand, and the need to ensure continuity and planning of cooperative activities on the other hand, lead ISSC and ITTC to create a joint committee, with a long mandate in order to last more than one ISSC and ITTC Congresses, and with the objective to promote a common understanding between members of both organizations on matters related with modelling uncertainties in the description of waves and wave induced responses.

## ISSC - ITTC Joint Committee membership

Chairman: Carlos Guedes Soares, Portugal

Members: Elzbieta Bitner-Gregersen, Norway

Stefano Brizzolara, USA

Spyros Hirdaris, UK

Kazuhiro Iijima, Japan

Ning Ma, China

Bettar el Moctar, Germany

Apostolos Papanikolaou, Greece

Josko Parunov, Croatia

Wei Qiu, Canada

Xueliang Wang, China

Takuji Waseda, Japan

Michael Woodward, Australia

Solomon Yim, USA

Julie Young, USA

## Aims

The ISSC-ITTC Joint Committee consists of members from both organisations with the aim of undertaking/promoting studies that enable the determination of the accuracy and uncertainty of existing calculation methods for comparison with experimental results (and their associated uncertainty).

The Joint Committee should not be concerned with aspects of work that would routinely be undertaken by the standard committees from both organisations but should focus on aspects, like benchmark and comparative studies that may require more time to complete.

## Scope

The scope of work of the ISSC-ITTC Joint Committee should address aspects such as:

- Physical and experimental methods of modelling and representing the environment and the response of ships and offshore structures to the environmental excitations,
- Sources of sensitivity of results to uncertainties in physical tests, including modelling of the environment, response of floating structures input data, assumptions and procedures themselves,
- Benchmark studies on wave modelling,
- Benchmark studies relating to measurement and prediction of linear and nonlinear loads and responses,

- Benchmark studies relating to the prediction of whipping and springing effects on torsional loads. The outcome of the work of the joint committee would contribute to the understanding of the state of the art and in this way contribute to the work of the traditional committees in each of the parent organisations.

## Workshop Programme

9:00h – 9:15h	Welcome and purpose of the workshop ( <b><i>Carlos Guedes Soares</i></b> )
9:15h – 9:45h	ISSC-ITTC Joint Committee workplan and Framework for uncertainty quantification in wave description and wave induced responses ( <b><i>Carlos Guedes Soares</i></b> )
9:45h – 10:15h	Uncertainties in wave analysis and modelling ( <b><i>Elzbieta Bitner-Gregersen</i></b> )
10:15h – 10:45h	<b><i>Coffee and Refreshment Break</i></b>
10:45h-11:15h	Uncertainties in Wave Loads ( <b><i>Josko Parunov</i></b> )
11:15h – 11:45h	Uncertainties in ship performance ( <b><i>Apostolos Papanikolaou</i></b> )
12:00h – 13:30h	<b><i>Lunch</i></b>
13:30h – 14:00h	Uncertainty quantification in CFD methods ( <b><i>Bettar Ould el Moctar</i></b> )
14:00h – 14:30h	Uncertainty in using multi-fidelity CFD for ship design ( <b><i>Stefano Brizzolara</i></b> )
14:30h – 15:00h	<b><i>Coffee and Refreshment Break</i></b>
15:00h – 15:30h	Typhoon waves and extreme value analysis ( <b><i>Takuji Waseda</i></b> )
15:30h – 16:00h	Model tests results and uncertainty analysis ( <b><i>Wei Qiu</i></b> )
16:00h – 16:30h	Open discussion

## Venue

The workshop will take place at the Hotel Zuiderduin in Egmond aan Zee (Amsterdam), where the ISSC 2018 Conference is being held.

The contacts are:

Hotel Zuiderduin

Zeeweg 52

1931 CJ Egmond aan Zee

Tel: +31 72 - 750 2000

Email: [info@zuiderduin.nl](mailto:info@zuiderduin.nl)



## Registration

The registration fee of EUR 75,00 is payable at the ISSC 2018 Conference Secretariat.

For additional information, please contact: Ms. Dineke Heersma (B.H.Heersma@tudelft.nl).