

# **Fourth International Conference on Marine Simulation 1987**

**(MARSIM' 87)**

**Trondheim, Norway  
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# Programme

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17 <sup>30</sup> -18 <sup>00</sup>	Demonstration : Bus to SMS	
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Tuesday June 23rd:

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Sightseeing in Trondheim, (free of charge)

SIMULATORS AND EQUIPMENT  
SESSION CHAIRMAN:  
Engineering Manager J. Case CAORF, USA

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Wednesday June 24th:

### Common Session

09<sup>00</sup>-09<sup>45</sup>

**GUEST SPEAKER:**

**The use of simulators in the aircraft industry.**  
**Captain John Bigelow,**  
**Aeroformation, Toulouse Biagnac, France.**

### Parallell Sessions.

#### HUMAN PERFORMANCE

SESSION CHAIRMAN: Managing Director J. Puglisi  
CAORF, USA

10<sup>00</sup>-10<sup>30</sup> Human control of ships in narrow fairways.  
H. Schuffel, TNO Institute for Perception, Soesterberg, The Netherlands.

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10<sup>00</sup>-10<sup>30</sup>

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Colfee  
Workload measurement on a simulated ship's bridge.  
Sablowski, Nadine / Froese, Jens.  
Fachhochschule Hamburg, Fachbereich Seefahrt, Hamburg, F.R.G.

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10<sup>30</sup>-11<sup>00</sup>  
11<sup>00</sup>-11<sup>30</sup>

11<sup>30</sup>-12<sup>00</sup>

The interaction of navigation performance and mental workload with  
bridge design.  
J. P. A. Boer, TNO Institute for Perception, Soesterberg, The Netherlands.

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11<sup>30</sup>-12<sup>00</sup>

12<sup>00</sup>-13<sup>30</sup>

Lunch

12<sup>00</sup>-13<sup>30</sup>

Lunch

#### MATHEMATICAL MODELS

SESSION CHAIRMAN: Prof. H. Engja,  
The Norwegian Institute of Technology

Mathematical modeling for naval ship handling simulators.  
V. K. Ankudinov and B. K. Jakobsen,  
Tractor Hydraulics Inc.  
7210 Pindell School Road  
Laurel, Maryland 20707, USA.

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Colfee

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A generalized hydrodynamic interaction force module and its use  
in simulation of ship interactions in shallow channels.  
Paul Kaplan, Virginia Polytechnic Institute and State University, Aero-  
space and Ocean Engineering Department, Blacksburg, Virginia, USA.

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A mathematical model for the simulation of ship manoeuvres in  
ice.  
Principal Project Engineer B. Menon, Artec Canada Ltd.

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		Mathematical model considering the characteristics of flow field in stern's neighborhood. Norihiro Matsumoto and Keiji Suemitsu Tsu Research Laboratories, Nippon Kokan K.K., Tsu-City, Japan.	
		Hydrodynamic lift and drag simulation for ship manoeuvring models. M. M. Pourzanjani, University of Exeter, UK. I. R. McCallum, Marlime Dynamics Ltd., UK J. O. Flower, University of Exeter, UK. H. K. Zienkiewicz, University of Exeter, UK.	
		Real time simulation system for automatic ship navigation. M. Numano, Ship Research Institute, Ministry of Transport, Tokyo, Japan.	

### Common Session

15<sup>15</sup>-15<sup>45</sup> **Summing up the conference. (Closing at 1600 hrs.)**  
Vice President Nils Nordensström, Det norske Veritas, (Chairman The Ship Manoeuvring Simulator, Norway)

16<sup>00</sup>-17<sup>00</sup> Demonstration : Bus to SMS  
17<sup>00</sup>-18<sup>30</sup> Demonstration : Bus to SMS

**Thursday June 25th:**

09<sup>00</sup>-10<sup>00</sup> Demonstration : Bus to SMS  
10<sup>00</sup>-11<sup>00</sup> Demonstration : Bus to SMS