

## CONFERENCE FEE:

30000 JPY payable by September 11, 2017  
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18000 JPY for PhD students  
6000 JPY for M.Sc. & B.Sc. students (no Proceedings)

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## REGISTRATION:

<https://www.lmt.uni-rostock.de/demat/information-demat17/>

## PAPER DEADLINES:

April 14, 2017:	Abstract
April 24, 2017:	Acceptance notice
July 14, 2017:	Submission of draft papers for scientific review
August 15, 2017:	Submission of final manuscripts

The papers have to be prepared in a set format.  
The paper template can be downloaded from the Workshop website  
<https://www.lmt.uni-rostock.de/demat/information-demat17/>

Please, submit your abstracts and papers by e-mail to the following address:  
[demat@uni-rostock.de](mailto:demat@uni-rostock.de)



of *Maritime Technologies*

**Sapporo, October 2-4, 2017**

## MONDAY, 2<sup>ND</sup> OCTOBER 2017

9.00 - 9.30 a.m. Welcome and registration

### MATHEMATICAL MODELS OF NET-LIKE STRUCTURES AND RELATED MARINE SYSTEMS

9.30 – 11.10 Session 1: Chair – M. Paschen

1. Shintaro Gomi, Tsutom Takagi, Norio Tanada, Kazuyoshi Komeyama, Katsuya Suzuki, Rika Shiraki, Yoshihiro Nishiyama, Shigeru Asaumi: **New technique to shape a fishing net into arbitrary geometry underwater**
2. Alexander Nedostup, Aleksey Ragev: **Mathematical modelling of the trawl doors**
3. Alexander Nedostup, Aleksey Ragev: **Imitating simulation of trawl doors**
4. Yuki Takahashi, Yousuke Ochi, Shintarou Yamasaki and Kaoru Fujita: **Study on hydrodynamic characteristics of net panel using CFD analysis**

11.10 -11.30 Coffee break

11.30 – 12.45 Session 2: Chair – F.G. O'Neill

5. Alexander Nedostup, Aleksey Ragev: **The problem of dynamic modelling of the trawl system**
6. Norio Tanada, Shintaro Gomi, Tsutomu Takagi, Kazuyoshi Komeyama, Shinsuke Torisawa, Katsuya Suzuki, Rika Shiraki, Yoshihiro Nishiyama, Shigeru Asaumi: **Development and evaluation of real-time simulation system of purse seine gear dynamics**
7. Chun Woo Lee, Jihoon Lee, Subbing Park: **Design and performance of software based trawl fishing simulator**

12.45 – 14.00 Lunch

### HYDRODYNAMICS AND RESISTANCE OF FISHING GEAR COMPONENTS

14.00 – 15.40 Session 3: Chair – C.W. Lee

1. Clara Casanovas, Ana Ivanović: **The upper-bound penetration of trawling ground gear components on sandy seabeds**
2. F. G. O'Neill, K.J. Summerbell: **The hydrodynamic drag of netting panels**
3. Stephan Schacht, Mathias Paschen: **Analysis of the cause of transverse forces at three-strand twisted ropes**
4. Xinxing You, Shuchuang Dong, Fuxiang Hu, Daisuke Shiode, Tadashi Tokai: **Effect of wing-tip flow on hydrodynamic characteristics of cambered otter board**

15.40 – 16.10 Coffee break

### PRACTICAL APPLICATIONS OF FUNDAMENTAL STUDIES IN SEVERAL FIELDS OF MARINE TECHNOLOGIES

16.10– 17.25 Session 4: Chair – A. Ivanović

1. Chen Zhang, Bernhard Schwarz-Röhr, Alexander Härting: **Estimation of ship motion at center of gravity using an optimization finding algorithm**
2. Christoph Otto, Mathias Paschen: **An open-source platform for the design and simulation of maritime systems**
3. Peter Menzel, Mathias Paschen: **Scour and scour prediction in the vicinity of offshore constructions**

## TUESDAY, 3<sup>RD</sup> OCTOBER 2017

### IMPROVED FISHING GEAR SYSTEMS FOR A SUSTAINABLE FISHERY

9.30 – 10.45 Session 5: Chair – A. Soldo

1. Keigo Ebata, Yuto Ibaraki, Issei Ozawa, Machi Yamane and Anukorn Boutson: **Sea trial of floated trap targeting bigfin reef squid *Sepioteuthis Lessoniana* and cuttlefish *Sepia Aculeata***
2. Takuya Endo, Takashi Katayama, Yasuzumi Fujimori: **Effect of square mesh panel to improve selectivity for thornhead in the pair trawl off Sanriku, Japan**
3. Piotr Nowakowski: **Selected physical properties of the T90 cod codend type measured in the lake training area**

10.45 -11.15 Coffee break

11.15 – 12.05 Session 6: Chair – A. Nedostup

4. Hao Tang, Liuxiong Xu, Fuxiang Hu, Taisei Kumazawa, Mamoru Hirayama, Cheng Zhou, Xuefang Wang: **Determining the effect of mesh size on spatial geometry, sinking behavior and pursing tension of tuna purse seine in physical model testing**
5. Adnan Tokaç: **The preliminary results of underwater observations of trawl codend for the selectivity studies**

12.05 – 13.30 Lunch

### ENGINEERING METHODS AND DEVELOPMENTS IN MARINE AQUACULTURE

13.30- 15.10 Session 7: Chair – H. Polet

1. Satoru Abe, Tsutomu Takagi, Kohsei Takehara, Nobuo Kimura, Tomonori Hiraishi, Kazuyoshi Komeyama, Shinsuke Torisawa, Takeharu Yamaguchi, Shigeru Asaumi: **Ptv-based automatic counting system for a shoal of fish swimming in a closed space**
2. Shuchuang Dong, Fuxiang Hu, Xiaoyu Qu, Taisei Kumazawa, Daisuke Shiode, Tadashi Tokai: **Field measurements of three-dimensional deformation in full-scale aquaculture net cage for Pacific bluefin tuna**

3. Ali Yıldırım Korkut, Adnan Tokaç, Osman Özden, Sait Cenk Ser: **The technology and developments of net cages used in Turkish aquaculture industry**

4. Hiroki Okita, Zheng Luning, Shigeki Yamauchi, Hiroki Yasuma, Nobuo Kimura: **The development of an abalone aquaculture system using multi-tiered continuous-flow tank**

15.10 – 15.40 Coffee break

### SURVEY AND OBSERVATION IN FISHING RESEARCH

15.40 – 17.20 Session 8: Chair – T. Takagi

1. Zhen Lu, Tohru Mukai, Yasuzumi Fujimori, Kohji Iida: **Estimating the catch efficiency of zooplankton nets using an acoustic method**
2. Naoto Matsubara, Makoto Sakamoto, Seiji Katakura, Tomonari Akamatsu, Ryuzo Takahashi, Yasuzumi Fujimori, Nobuo Kimura, Kazuyoshi Maekawa, Hiroki Yasuma: **Sound production by steindachner (*sebastes taczanowskii*); relationship between sounds, fish density**
3. Alen Soldo, Igor Glavičič: **A comparison of three techniques for underwater visual sampling of fish communities**
4. Ali Ulaş, Adnan Tokaç: **A review on artificial reefs for octopus (*octopus vulgaris*, cuvier 1797) in Turkey**

19.30 Conference dinner

### POSTER-PRESENTATIONS during the workshop:

Makoto Sakamoto, Naoto Matsubara, Hiroki Yasuma, Susumu Shimizu, Yasuzumi Fujimori, Seiji Katakura: **Fish attracting effects of LED light in different color**

Daisuke Shiode, Maika Shiozawa, Shotaro Ueno, Fuxiang Hu, Tadashi Tokai, Yoshio Hirai: **Behaviour of sea turtle in a submerged bag net of set net with the turtle releasing system (TRS)**

Maika Shiozawa, Daisuke Shiode, Fuxiang Hu, Tadashi Tokai: **Closing force of the flap door in the turtle releasing device (TRD) for set net**

Kazuyoshi Komeyama, Jin Mugita, Osamu Tamaru, Tsutom Takagi: **Comparison of fish shoals of Japanese mackerel and chub mackerel: monitoring behaviour of fish schools using a stereo vision camera**

## WEDNESDAY, 4<sup>TH</sup> OCTOBER 2017

9.00 Excursion