

## ISABMEC2024 Program November 26th – 28th, 2024

<b>26th (Tues.)</b>		
<b>Time (UTC)</b>	<b>Author(s)</b>	<b>Title</b>
9:00	Opening remarks	
	Swimming (1)	
9:40	Yusuke Horiguchi, Takero Yoshida, Go Eguchi, Ippei Oshima, Yukiyo Kobayashi, Gen Li and Haruka Nishikawa	Detection of Fish Activity Alterations Pre- and Post-Feeding with Imaging Sonar
10:00	Go Eguchi, Haruya Tanimoto, Yogo Takada and Tsutomu Takagi	Evaluation of Vortex Generation and Thrust Force Induced by Flexible Fin with Tail-beating
10:20	Break	
	Swimming (2)	
10:40	<b>【Invited】</b> Surasak Phoemsapthawee	Flapping foil, a biomimetic marine propulsion
11:20	Tonau Nakai, Makoto Kobayashi, Takahiro Yamagishi	Automatic diagnosis of swimming abnormalities in acute toxicity tests of medaka fish
11:40	Motoki Ikuta, Yuki Takahashi, Takashi F. Matsuishi	Study on hydrodynamic characteristics of small cetacean flukes with different planforms using CFD analysis
12:00	Lunch (provided in the venue)	
	Swimming (3)	
13:40	Misaki Sakashita, Naoyuki Wada	Do the undulation and oscillation of the body and/or caudal fin in teleost fish induce elongation of the caudal vertebrae and sharpening of the lateral ridges?
14:00	Takayuki Aoki, Seiya Watanabe, Akira Yoshiizumi and Kenta Sugihara	Computer Simulations for Self-Swimming of Water Strider and Dolphin
14:20	Shunichi Kobayashi, Taisuke Nakamura	Musculoskeletal Analysis of the Dolphin Fluke during Horizontal Swimming
14:40	Break	
	Swimming and Flying (1)	
15:00	Yuuki Tanaka, Souta Shimoyama and Akitoshi Ito	Behavior control of "Medaka" by using their optomotor response (The effect of control pool size and the improvement of the experimental environment using a half mirror)
15:20	<b>【Invited】</b> Shinichiro Ito	Relationship between the shape and life form of swimming organisms and swimming style
16:00	Haruki Hiro, Yoshinobu Inada	Development of Small, Lightweight Flying Vehicle with Reference to Seeds of Dipterocarp
16:20	Yuta Nomura, Kazuya Saito, Fujio Tsumori	Development of beetle-hindwing-inspired deployable origami structure
16:40	Chihiro Fukui, Toshiyuki Nakata, Daigo Terutsuki	Enhanced bio-hybrid drone for long-range odor source localization

<b>27<sup>th</sup> (Wed.)</b>		
<b>Time (UTC)</b>	<b>Author(s)</b>	<b>Title</b>
	<b>Flying (2)</b>	
9:20	Yoshinobu Inada, Gakuto Inoue, Chunhui Li, Yusuke Yamazaki	Analysis of Optimum Wing Configuration for Feathered Flying Dinosaur Anchiornis huxley
9:40	Yu Kamimizu, Hao Liu, Toshiyuki Nakata	Data-driven quasi-steady modelling of flapping wing aerodynamics
10:00	Yosuke Yamamoto, Hao Liu, Toshiyuki Nakata	Aerodynamic performance of the gliding wing with slotted wing tip.
10:20	Chiaki Hasegawa, Taiki Shimooka, Hiroto Tanaka	Fabrication of penguin-inspired flexible wings with 3-D printed spar and rib structures
10:40	Break	
	<b>Biology (1)</b>	
11:00	Fumio Ito, Daisuke Takagi, Taro Nakamura	Underwater robot inspired by bacteria with shape-changing flagella - experimental
11:20	Takashi Otsu, Yu Kogure, Toshihiro Omori, Takuji Ishikawa	Numerical simulation of a ciliate propelling through a gap between suspended spheres
11:40	Renji Iwasawa, Toshihiro Omori, Takuji Ishikawa	Numerical simulation of a dense suspension of spermatozoa
12:00	Lunch	
	<b>Biology (2)</b>	
14:00	<b>[Invited]</b> Kenji Kikuchi	Dynamic flow induced by bubbling during yeast fermentation
14:40	Daigo Terutsuki, Chihiro Fukui, Soichiro Murakami, Toshiyuki Nakata	Basic characterization of a human odor detection sensor utilizing mosquito chemoreceptors
15:00	Kosuke Nakashima, Tomonobu Goto, Tonau Nakai	Measurement of the turn angle distribution and the turning positions of peritrichous bacteria in the concentration field of the attractant.
15:20	Gen Li, Yoshihiro Fujiwara, Hiroto Tanaka	Largehead hairtails improve their vertical-posture swimming performance by adopting unique dorsal-ventral cross-section shape
15:40	Break	
	<b>Biology (3)</b>	
16:00	Kenta Tokuyama, Akitoshi Ito	Object Transportation by the Single Naked Paramecium
16:20	Takumi Ogawa, Shuji Koyama, Toshihiro Omori, Kenji Kikuchi, Hélène de Maleprade, Raymond E. Goldstein and Takuji Ishikawa	Numerical simulation of the sponge's aquiferous system
16:40	Yuto Tanaka, Yuki Nitta, Yuichi Sakai, Tsutomu Takagi	Movement model of the sea cucumber Apostichopus japonicus incorporating hydrodynamics

<b>28<sup>th</sup> (Thu.)</b>		
<b>Time (UTC)</b>	<b>Author(s)</b>	<b>Title</b>
	Robot (1)	
9:20	Yuka Takeda, Satoshi Ogaki, Hiroto Nagashima, Yosuke Suzuki, Ryunosuke Sawahashi, Fumio Ito, Hiroshi Yoshida, Taro Nakamura	Development of a Peristaltic drilling robot for exploration under Arctic sea ice -A proposed method for estimating drilled hole diameter using pneumatic flow rate of propulsion unit-
9:40	Taiki Shimooka, Atsushi Kakogawa, Hiroto Tanaka	Underwater forward swimming of RoboPenguin with flapping wings
10:00	Wara Taparhudee, Roongparit Jongjaraunsuk, Sukkrit Nimitkul, Pimlapat Suwannasing, Wisit Mathurossuwan	Utilizing Unmanned Aerial Vehicle (UAV) with Integrated Machine Learning and Deep Learning Models to Assess Fish Weight of Red Tilapia in River Cage Culture
10:20	Break	
	Robot (2)	
10:40	Tetsuro Obu, Fakhrur Razi , Shunsuke Ikeda, Hiroki Yanadori, Motomu Nakashima	The new swimming humanoid robot incorporating pressure sensors on the hand to measure propulsive forces
11:00	<b>【Invited】</b> Patricia J. Yang	Wombat's Cubical Feces and Cuttlefish Ink Patterns
11:40	Lunch (provided in the venue)	
14:40	Closing remarks	

### **Important supplementary information**

<b>Event</b>	<b>Date and time</b>	<b>Venue</b>
Registration	November 25 <sup>th</sup> , 18:00 -	Krua Sa Ros Jud
Symposium Banquet	November 28 <sup>th</sup> , 18:00 -	Zhang Restaurant, Rama Garden Hotel
Excursion	November 29 <sup>th</sup>	We will tour several places by charter bus