Final Program of the ISABMEC 2018

Last Updated: 2018/8/22

From	To	Aug. 29	Aug. 30	Aug. 31	Sept. 1
		Wednesday	Thursday	Friday	Saturday
8:30	8:45				
8:45	9:00		Registration	Registration	Registration
9:00	9:15				
9:15	9:30		Opening address	(Biomechanics in Microorganisms) KS03 **Roberto Di Leonardo** Light driven bacteria as remotely controllable propellers for micro-engineering applications	(Biomechanics in Swimming) KS05 **Silas Alben** Dynamics and locomotion of flexible foils in fluid and frictional environments
9:30	9:45		(Bioimechanics in Flying) KS01 **Richard J Bomphrey** The utility of solid and fluid geometries in insect and bird flight research		
9:45	10:00				
10:00	10:15			**M. Takahashi** - Bacterial Flow in the Gut of a Zebrafish Larva	**T. Shimizu** - Effect of flexion angle of pectoral fin tip to the velocity distribution in Mobula japanica
10:15	10:30		Coffee break	**T. Nakai** - Chemotaxis measurement for a single bacterial cell and cell group	**G. Li** - Parametric study on the hydrodynamic influence of collective swimming in fish
10:30	10:45		**T. Jakobi** - The Effect of Vertical Gusts on the Flow Field near Insect-size Flapping Wings	Coffee break	Coffee break
10:45	11:00		**D. Kolomenskiy** - The Dynamics of Bumblebee Wing Pitching Rotation		**Z. Jun** - Investigation on streamwise vortex generated by undulating fins
11:00	11:15		**J.M. Liang** - Wing Kinematics Measurement and Aerodynamics of a Damselfly with Asymmetric Strokes during Free Flight	**M. Iima** - Stochastic motion of individuals and macroscopic patterns of photosensitive alga Euglena gracilis	**Z. Zhao** - A study of zebrafish locomotion using experimental and numerical simulation
11:15	11:30		**R Xu** - Passive feathering mechanism improves stability in Bumblebee	**T. Akiba** - Plankton travels the heterogeneous world back and forth by changing its swimming mode	**G. Eguchi** - Wake-field and thrust induced by tail-beating in two different fish species: cyprinid and scombrid fish
11:30	11:45		**T Nakata** - Aerodynamic efficiency and robustness of insect-inspired flexible flapping mechanisms	**T. Kikuchi** - High Efficiency Object Transportation by Operation Tool Installed Daphnia	**B. Thiria** - Burst-and-coast dynamics in steady swimming of tetra fish
11:45			Lunch	Lunch	Lunch
	13:00				
13:00	13:15		**K Senda** - A Study on Implicit and Explicit Controls of Flapping Butterflies	(Biology) KS04 **Tatsuo Motokawa** Skin of sea cucumbers: the smart connective tissue that alters mechanical properties in response to external stimuli	(Biomimetics in Underwater Vehicles/Robots) KS06 **Yasuyuki Toda** Development of the Osaka University Squid-Like Underwater Robot
13:15	13:30		**P.Y. Zou** - Effect of Phase Lag on Hovering Flight of Damselflies and Dragonflies		
13:30	13:45		**Y.J. Lin** - The Effect of Wing Rotation on the Flight of Blue Tiger (Tirumala septentrionis)		
13:45	14:00		Coffee break	Coffee break	Coffee break
14:00	14:15		**S.H. Lee** - Optimal configuration of a two-dimensional bristled wing	**J. Wang** - A biomimetic blade design for regenerative blower with owl-inspired serrations	**T. Morita** - Locomotion mechanism of microcapsule using flow oscillation
14:15	14:30		**D. Chen** - A Universal Estimate of the Leading-Edge Vortex of a Rotary Wing	**Y. Takada** - Investigation of Rotors Imitating Bird Wings for Reducing Electricity Consumption of Structure Inspection Robot HORNET	**M. Nakabayashi** - Flexible propulsion mechanism in fluid using elastic telescopic mechanism based on pellicular of Euglena - Evaluation of fluid force and flow field -
14:30	14:45		**Y. Inada** - Hydrodynamic effect of small tubercles based on the dorsal ridge tubercles of finless porpoise	**K. Fukui** - The improvement of the wing performance using the wing with sinusoidal leading edge(The effect of the wing camber and the wing camber position)	**H. Gao** - Modeling of fish predatory behavior using autonomous underwater vehicle
14:45	15:00		Coffee break	Coffee break	**T. Aritani** - Development of Small Robotic Fish Equipped with FPGA and CMOS Camera for Tracking Live Fish
15:00	15:15	Registration @ TDU Senju Campus	(Biological Systems) KS02 **David L. Hu** Ant rafts and maggot flows	**A. Kaji** - A Propsal of Compact and Low-power Flying Car in Japan by BLC Effect and Biomimetics	Coffee break
15:15	15:30			**S. Ito** - Aerodynamic characteristics and the flow field by the phase difference of the the dragonfly wing	**K. Kugai** - Analysis of Swimming ability of Blue-fin Tuna and Its Application to the Fish Robot - Experimental Study about the Relationship between Caudal-fin Motion and Swimming Speed -
15:30	15:45			**Y. Koyama** - Formation Flight Control of Multiple UAVs based on the Collective Motion Control of Organisms	**H. Sumikawa** - CFD-based visualization of differences in macroscopic flow patterns around several types of caudal fins
15:45	16:00		**S. Yamamoto** - Fabrication of plastic needle using three-dimensional stereolithography - FEM analysis and blood sucking on experimental animal -	**R. Noda** - Development of bio-inspired propeller for a drone	**S. Kobayashi** - Bio-inspired Aquatic Propulsion Mechanism Using Viscoelastic Fin Containing Fiber Composite Dilatant Fluid
16:00	16:15		**M. Higa** - Two different measurements of Isometric Strength of Elbow Flexors		**F. Razi** - Realization and swimming performance of backstroke by the swimming humanoid robot
16:15	16:30		**W. Kim** - Control of fluid-structure interaction of a long flexible cylinder inspired by the shape of a daffodil stem		
16:30	16:45				
17:45					
18:00		Welcome reception @Tokyo Solamachi 18:00-20:00 (17:30 open)			Symposium Banquet (Cruise dinner on Yakatabune) (18:30-21:00) Move together from the conference room at 18:10 Back together to TDU Senju campus at around 21:20
	20:00				

Biomechanics in Microorganisms, Biomechanics in Swimming

Bioimechanics in Flying

Biomimetics in Aerial Vehicles/Robots, Biomimetics in Underwater Vehicles/Robots

Biology, Biological Systems