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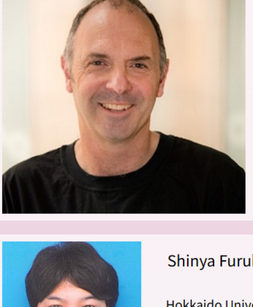
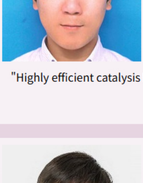
Venue: RIES2020 will be held online



Paul Mulvaney
Melbourne University

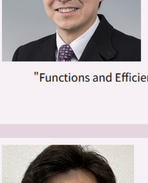
10:50 - 11:50
December 11th

"Surface Plasmon Spectroscopy of Nanoarrays"



Shinya Furukawa
Hokkaido University
13:00 - 13:20
December 10th

"Highly efficient catalysis based on multimetallic alloys"

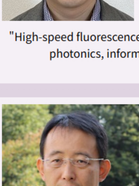


Takuji Ishikawa
Tohoku University
10:10 - 10:40
December 10th

"Functions and Efficiency of Ciliary Swimming"

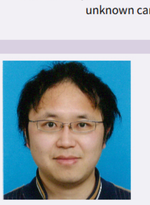
Sungjee Kim
Pohang University of Science and Technology
9:50 - 10:30
December 11th

"InP Magic Size Clusters and Various InP Nanostructures"



Hideharu Mikami
Hokkaido University
16:40 - 17:00
December 10th

"High-speed fluorescence imaging: toward integration of photonics, informatics, and life sciences"



Yukiko Miyatake
Hokkaido University
9:00 - 9:20
December 11th

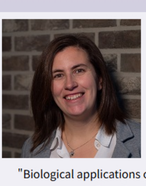
"New micro-patterned 3D cell culture platform reveals unknown cancer behavior"

Hiroyuki Nakamura
Tokyo Institute of Technology
13:20 - 13:50
December 10th

"Development of Protein Chemical Labeling: From Target Identification to Cancer Therapy"

Shinji Nakaoka
Hokkaido University
10:40 - 11:00
December 10th

"A computational method to detect key factors associated with critical transition of health condition"

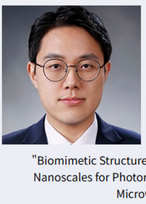


Akira Oiwa
Osaka University
11:00 - 11:30
December 10th

"Photon-spin quantum interface using gate-defined quantum dots for quantum internet"

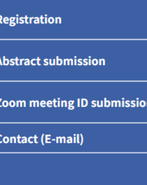
Fernando Peruani
CY Cergy Paris University
17:40 - 18:20
December 10th

"Challenging Pre-established Active Matter Paradigms"



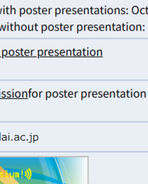
Susana Rocha
KU Leuven
17:00 - 17:40
December 10th

"Biological applications of new materials: from tissue engineering to drug delivery "



Tomohide Saio
Tokushima University
9:20 - 9:50
December 11th

"On and off between molecular chaperones and clients: appropriate distance and timing for protein folding"



Bongjun Yeom
Hanyang University
13:50 - 14:30
December 10th

"Biomimetic Structure Engineering in Micro and Nanoscales for Photoreflective Films and Chiral Microwrinkles"

Date	December 10th –11th, 2020
Organized by	Research Institute for Electronic Science (RIES), Hokkaido University
Registration	Deadline: Participants with poster presentations: October 30 Participants without poster presentation: December 9
Abstract submission	Abstract submission for poster presentation Deadline: November 12
Zoom meeting ID submission	Zoom meeting ID submissionfor poster presentation Deadline: November 12
Contact (E-mail)	sapporo2020@es.hokudai.ac.jp
Symposium poster	

Joint with the 5th International Symposium of Dynamic Alliance for Open Innovation Bridging Human, Environment and Materials(Five-Star Alliance)

Five-Star Alliance

THE 21st RIES-HOKUDAI INTERNATIONAL SYMPOSIUM

Attend Symposium

Preface

It is our great honour to be able to organise the 21st RIES-Hokudai International Symposium and to welcome all the participants.

Due to the rapid world-wide spreading of the new coronavirus infections (COVID-19), we have decided to hold the symposium as an online virtual symposium on December 10-11, 2020.

Research Institute for Electronic Science (RIES) started as “Research Institute of Ultrashort Waves” in 1943 is now conducting a diverse range of science including optical science, material science, life science and mathematics under the mission of development of new interdisciplinary fields. For this purpose, we carry out several programs to encourage active interactions between researchers in different research fields. The International Symposium having been held annually since 1999 is one of the most important events.

The symposium each year has been symbolised by a single "Kanji" (aChinese character). The “Kanji” in 2020 is the character “間” [ma] whichgenerally denotes “distance”, "interval", “scale”, and means also “between” or “across the space separating”. Although we need to keep physical distance each other under this circumstance, we wish to bridge across the space and develop the interdisciplinary research field through scientific collaborations. I wish that this symposium could be an opportunity for it.

I expect the present symposium would be fruitful and positive for all the participants to be much stimulated and to obtain inspirations on science.

Representing the organising committee of 21st RIES-Hokudai International Symposium,
Prof. Hiroshi Uji-i,
the chair of 21st RIES-Hokudai International Symposium

THE 21st RIES-HOKUDAI INTERNATIONAL SYMPOSIUM

Attend Symposium

December 10th(Japan Standard Time)

10:00 – 10:10 Opening Remarks	10:00-10:05 Toshiyuki Nakagaki, Director of RIES
	10:05-10:10 HiroshiUji-i, Chair of 21stRIES International Symposium
10:10-11:30 Invited Talks	10:10-10:40 Takuji Ishikawa, Tohoku University "Functions and Efficiency of Ciliary Swimming"
	10:40-11:00 Shinji Nakaoka, Hokkaido University "A computational method to detect key factors associated with critical transition of health condition"
	11:00-11:30 Akira Oiwa, Osaka University "Photon-spin quantum interface using gate-defined quantum dots for quantum internet"
11:30 – 13:00 Lunch Break	
13:00 – 14:30 Invited Talks	13:00-13:20 Shinya Furukawa, Hokkaido University "Highly efficient catalysis based on multimetallic alloys"
	13:20-13:50 Hiroyuki Nakamura, Tokyo Institute of Technology "Development of Protein Chemical Labeling: From Target Identification to Cancer Therapy"
	13:50-14:30 Bongjun Yeom, Hanyang University, Republic of Korea "Biomimetic Structure Engineering in Micro and Nanoscales for Photoreflective Films and Chiral Microwrinkles"
14:30 – 14:50 Short Break	
14:50 – 16:30 Online Poster Session	14:50-15:40 Poster session 1 (odd number)
	15:40-16:30 Poster session 2 (even number)
16:30 – 16:40 Short Break	
16:40-18:20 Invited Talks	16:40-17:00 Hideharu Mikami, Hokkaido University "High-speed fluorescence imaging: toward integration of photonics, informatics, and life sciences"
	17:00-17:40 Susana Rocha, KU Leuven, Belgium "Biological applications of new materials: from tissue engineering to drug delivery"
	17:40-18:20 Fernando Peruani, CY Cergy Paris University, France "Challenging Pre-established Active Matter Paradigms"

December 11th(Japan Standard Time)

9:00-10:30 Invited Talks	9:00-9:20 Yukiko Miyatake, Hokkaido University "New micro-patterned 3D cell culture platform reveals unknown cancer behavior"
	9:20-9:50 Tomohide Saio, Tokushima University "On and off between molecular chaperones and clients: appropriate distance and timing for protein folding"
	9:50-10:30 Sungjee Kim, Pohang University of Science and Technology, Republic of Korea "InP Magic Size Clusters and Various InP Nanostructures"
10:30 – 10:50 Short Break	
10:50 – 11:50 Plenary Lecture Paul Mulvaney, The University of Melbourne, Australia "Surface Plasmon Spectroscopy of Nanoarrays"	
11:50 – 12:00 Poster Award Ceremony Closing Remarks	

Poster Session

Poster Award

P6 Takuya Chiba (Graduate School of Life Science, Hokkaido University)
P10 Jeladhara Sobhanan (Graduate School of Environmental Science, Hokkaido University)
P33 Takuto Ishida (Graduate School of Information Science and Technology, Hokkaido University)
P44 Qian Yang (Graduate School of Information Science and Technology, Hokkaido University)
P53 Yen-En Liu (Graduate School of Information Science and Technology, Hokkaido University)
P59 Gowoon Kim (Graduate School of Information Science and Technology, Hokkaido University)

Platform for poster presentation

Zoom:
Presenters are asked to share their presentation materials and make presentations with the camera on. Presenters may use PowerPoint slides, PDF or other format for your presentation in the Zoom meeting rooms.

Presentation Time

14:50-15:40 Poster session 1 (odd number)
15:40-16:30 Poster session 2 (even number)

Poster Presentation

No.	Title and Author list
P01	Thermoresponsive assembly of gold nanodiscs modified with hexa (ethylene glycol) derivatives. Joshua C Mba, Hideyuki Mitomo, Kuniharu Ijiro
P02	Classification of Spectra in Raman Microscopic Image by Chemical Heterogeneity Ryoya Kondo, James N Taylor, Jean-emmanuel Clément, Yuta Mizuno, Katsumasa Fujita, Yoshinori Harada, Tamiki Komatsuzaki
P03	To classify Raman spectra using Deep Learning Approach Abdul Halim Bhuiyan, Jean-emmanuel Clément, Kentaro Mochizuki, James nick Taylor, Koji Tabata, Yuta Mizuno, Atsuyoshi Nakamura, Yoshinori Harada, Katsumasa Fujita, Tamiki Komatsuzaki
P04	The Position and Trajectory Analysis of Combined Effects of Bio-Muscle Contraction and Stretch Arpit Rawankar, Mohit Gujar, Hemant Jadhav, Mayurkumar Nanda, Ashish Shekhar, Prathmesh Mestry, Vijay Purohit, Avinash Srivas
P05	Single Particle Electroluminescence Blinking Revealing Switching Between the Emitting and Quenching Sites in $MAPbBr_3$ Perovskites Bhagyalakshmi Sankaramangalam balachandran, Biju Vasudevanpillai
P06	Nematodes *Caenorhabditis elegans'* phoretic behavior to insects using an electrostatic field Takuya Chiba, Takuma Sugi, Yukinori Nishigami, Toshiyuki Nakagaki, Katsuhiko Sato
P07	The physical mechanism of behavioral change in the ciliate, *Stentor coeruleus* in narrow areas. Syun Echigoya, Yukinori Nishigami, Katsuhiko Sato, Toshiyuki Nakagaki
P08	Elucidation of the Mechanism of Amoeboid Motion in *Arcella* sp. Genta Matsumoto, Nishigami Yukinori, Sato Katsuhiko, Nakagaki Toshiyuki
P09	Deintercalation of Na^+ from $NaAlB_{14}$ by a high-pressure electrochemical method Suguru Iwasaki, Haruhiko Morito, Melbert Jeem, Madoka Ono, Masaya Fujioka, Junji Nishii
P10	Multimodal Detection of Circulating Tumor Cells Using Multifunctional Silica Particles Jeladhara Sobhanan, Yuta Takano, Vasudevanpillai Biju
P11	Length controlled AFM-AgNW probes for tip-enhanced Raman Scattering Jiangtao Li, Han Wen, Tomoko Inose, Kenji Hirai, Hiroshi Uji-i
P12	Behavioral pattern diversity and quantitative analysis of *Halteria* Koki Kanda, Yukinori Nishigami, Katsuhiko Sato, Toshiyuki Nakagaki
P13	An Effect of Inclination of Weyl Cone on Magnetoconductivity of Weyl Semimetals Kazuki Morishima, Kenji Kondo
P14	Multicolour photochromic fluorescence of fluorophores introduced in metal-organic frameworks Taisei Kitagawa, Kenji Hirai, Tomoko Inose, Hiroshi Ujii
P15	Curvature-Dependent Assembly Formation of Gold Nanoparticles Using Cyclodextrin Inclusion Kun Xiong, Hideyuki Mitomo, Yusuke Yonamine, Kuniharu Ijiro
P16	Real-time Suppression of Photoluminescence Blinking in Lead Halide Perovskite Quantum Dots Lata Chouhan, Syoji Ito, Hiroshi Miyasaka, Vasudevanpillai Biju
P17	Application of Linear Bandit in Drug Screening Example Md. Menhazul Abedin, Koji Tabata, Jean-emmanuel Clément, Masumi Tsuda, Shinya Tanaka, Tamiki Komatsuzaki
P19	Selective surface-enhanced Raman scattering by coating of metal-organic framework on metal nanowires Taku Murasugi, Kenji Hirai, Tomoko Inose, Hiroshi Ujii
P20	Reduction of Metal-to-Insulator Transition Temperature of VO_2 Films by Inserting TiO_2 Layers Binjie Chen, Gowoon Kim, Hai jun Cho, Hiromichi Ohta
P21	Resistance to the flow shown by ciliates *Tetrahymena* Yukinori Nishigami, Takuya Ohmura, Masatoshi Ichikawa
P22	Site-specific gold nanoparticles deposition on silver nanowire for nano-heat source Yusuke Nakao, Syuichi Toyouchi, Kenji Hirai, Tomoko Inose, Hiroshi Uji-i
P23	Development of a highly sensitive DNA-based fluorescent probe using DNA elongation enzyme Naohiro Okada, Yusuke Yonamine, Hideyuki Mitomo, Kuniharu Ijiro
P24	An Evaluation of Shape-dependent Kinetics of Defect Filling in Organolead Halide Perovskites Takuya Okamoto, Md. Shahjahan, Bhagya lakshmi S. b., Biju Vasudevanpillai
P25	Bioconvection shown by the ciliate *Tetrahymena* Mai Onishi, Yukinori Nishigami, Katsuhiko Sato, Toshiyuki Nakagaki
P26	Detection of Fluorescent Rhodamine 6G Dye with Laser Interaction Technique Pooja Ravindra Baikar, Arpit Rawankar, Vaibhav Kshirsagar
P27	Gold nanostructures-deposited Silver Nanowires for the Cytosolic and Nuclear pH Sensing Qiang Zhang, Monica Ricci, Jiangtao Li, Takuto Ishida, Han Wen, Haruka Kojima, Tomoko Inose, Shuichi Toyouchi, Yasuhiko Fujita, Kenji Hirai, Beatrice Fortuni, Hiroshi Uji-i
P28	Terminal alkyl odd-even parity affecting mechano-photoresponsive property of bisamide-substituted diacetylenes Jiajun Qi, Yuna Kim, Kiyonori Takahashi, Ken'ichi Aoki, Ichiro Hisaki, Takayoshi Nakamura, Nobuyuki Tamaoki
P29	Exotic Electronic Structures and Magnetotransport Phenomena of Second-Order Weyl Semimetals Shiryu Komori, Kenji Kondo
P30	pH-induced reversible orientation change of gold nanorods on DNA polymer brushes Yu Sekizawa, Hideyuki Mitomo, Satoshi Nakamura, Yusuke Yonamine, Kuniharu Ijiro,
P31	Heterojunction Perovskite Microrods Prepared by Remote-controlled Vacancy Filling and Halide Exchange Md Shahjahan, Ken-ichi Yuyama, Vasudevanpillai Biju
P32	Structural reversibility of gold nanovesicles response to solvent changes by multiple ligands modification Ryo Sugiyama, Hideyuki Mitomo, Yusuke Yonamine, Kuniharu Ijiro
P33	Low invasive gene delivery by using silver nanowires Takuto Ishida, Tomoko Inose, Kenji Hirai, Hiroshi Uji-i
P34	End-shape engineering on metal nanowires Taiki Akashi, Tomoko Inose, Shuichi Toyouchi, Kenji Hirai, Hiroshi Uji-i
P35	Gold Nanorod Arrays in DNA Brushes as a Novel Substrate for Cell Analysis Chisato Toyokawa, Hideyuki Mitomo, Yu Sekizawa, Yusuke Yonamine, Kuniharu Ijiro
P36	Inferring domain of Interaction among Dictyostelium discoideum colony from the ensemble of Trajectories of cells Udoy S. Basak, Sulimon Sattari, Motaleb M. Hossain, Kazuki Horikawa, Tamiki Komatsuzaki,
P37	Nanoscale characterisation of carbon nanomaterials using tip-enhanced Raman spectroscopy Han Wen, Tomoko Inose, Syoji Sugioka, Jiangtao Li, Kenji Hirai, Hiroshi Uji-i
P39	Tip-enhanced Raman spectroscopy on chemically unzipped carbon nanoribbon Shoji Sugioka, Tomoko Inose, Shinnosuke Hara, Shuichi Toyouchi, Kenji Hirai, Yasuhiko Fujita, Hirofumi Tanaka, Hiroshi Uji-i,
P40	Clean Unit System Platform (CUSP) and developing connected CUSP Booths XiaoHan Wang, ZiLing Zhou, Masahiro Yasutake, Akira Ishibashi
P41	For Fabrication of Waveguides inMulti-striped Orthogonal Photon-Photocarrier Propagation Solar Cell(MOP^3SC) System Xingbai Hong, Jiaxing Yu, Yuto Ohkura, Nobuo Sawamura, Akira Ishibashi
P42	Defect-dependent amplified emission from a lead halide perovskite Feijun Xu, Takuya Okamoto, Md Shahjahan, Vasudevanpillai Biju
P43	Effect of temperature on the orientation of gold nanorods aligned on the DNA brush Jingyan Yang, Hedeyuki Mitomo, Yu Sekizawa, Yusuke Yonamine, Kuniharu Ijiro
P44	Electrochemical Redox Control of $SrCoO_x$ Epitaxial Films using YSZ as the Solid Electrolyte Qian Yang, Joonhyuk Lee, Hyoungjeen Jeen, Bin Feng, Yuichi Ikuhara, Hai jun Cho, Hiromichi Ohta,
P45	Analysis on spatial distribution of Poynting vectors for multimer plasmonic fields Yuji Sunaba, Keiji Sasaki
P46	Mathematical modeling of plastic deformation of the basement membrane Yasuaki Kobayashi, Yasugahira Yusuke, Nagayama Masaharu
P47	Electron and heat transport properties of $BaTiO_3$—$BaNbO_3$ solid solution epitaxial films Yuqiao Zhang, Hai jun Cho, Hiromichi Ohta
P48	Analysis of Cancer Stem Cells in Sarcoma Model Cells by Deep Neural Network Zannatul Ferdous, Masumi Tsuda, Jean-emmanuel Clément, Koji Tabata, Yusuke Ishida, Jun Suzuka, Jian Ping Gong, Shinya Tanaka, Tamiki Komatsuzaki,
P49	Fluorescence detection of singlet oxygen by a rhodamine 6G-anthracene conjugate Hanjun Zhao, Devika Sasikumar, Yuta Takano, Vasudevanpillai Biju
P50	Mechanically Controlled Photoluminescence of Formamidinium Lead Bromide Perovskite Quantum Dots by Making and Breaking Assemblings Zhijing Zhang, Sushant Ghimire, Biju Vasudevanpillai
P51	Electron Transfer from Perovskite Films Controlled by Controlling the Diffusion of Photogenerated Charge Carriers Sachith Bhagyashree mahesha, Sushanth Ghimire, Yuta Takano, Vasudevanpillai Biju
P52	Raman Imaging for Exploring Cancer Metabolism Jean-emmanuel Clément, Mochizuki Kentaro, Katsumasa Fujita, Tamiki Komatsuzaki
P53	Coherent-interaction-enhanced hot-electron generation under modal strong coupling conditions Yen-en Liu, Xu Shi, Tomoya Oshikiri, Shuai Zu, Quan Sun, Keiji Sasaki, Hiroaki Misawa
P54	Mathematical modeling for biological wastewater treatment Satoshi Matsunaga
P55	Modal Ultra-strong Coupling using Au/Ag Alloy Nanoparticles and Fabry-Pérot Nanocavity and its application to water oxidation Yoshiki Suganami, Tomoya Oshikiri, Xu Shi, Hiroaki Misawa
P56	Synthesis and electrical conductivity of Ag-intercalated transition-metal trichalcogenide Ag_xZrTe_3 Kento Sato, Masaya Fujioka, Melbert Jeem, Madoka Ono, Junji Nishii
P57	Vector analysis of amoeba motion response to a cyclic-AMP wave Md. Motaleb Hossain, Sulimon Sulimon Sattari, Udoy Sankar Basak, Kazuki Kazuki Horikawa, Tamiki Tamiki Komatsuzaki
P58	Effect of heat treatment on the microstructure, electron transport properties and chemical bonding states of La-doped $BaSnO_3$ films Takashi Fujimoto, Cho Jun Hai, Hiromiti Ohta
P59	Large Anisotropy of Electron Transport in Oxygen Deficient Tungsten Oxide Epitaxial Films with 1D Atomic Defect Tunnels Gowoon Kim, Bin Feng, Sangkyun Ryu, Hai jun Cho, Hyoung Jeen, Yuichi Ikuhara, Hiromichi Ohta,
P60	Vector analysis of amoeba motion with respect to the propagation of chemoattractant cyclic-AMP Sulimon Sattari, Udoy Basak, Motaleb Md. Hossain, Kazuki Horikawa, Tamiki Komatsuzaki
P61	Micro-liquid enclosure array for X-ray laser diffractive imaging Akihiro Suzuki, Takashi Kimura, Ying Yang, Yoshiya Niida, Akiko Nishioka, Masashi Takei, Jinjian Wei, Hideyuki Mitomo, Yasutaka Matsuo, Kenichi Niikura, Kuniharu Ijiro, Kensuke Tono, Makina Yabashi, Tetsuya Ishikawa, Tairo Oshima, Yoshitaka Bessho, Yasumasa Joti, Yoshinori Nishino

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THE 21st RIES-HOKUDAI INTERNATIONAL SYMPOSIUM

Attend Symposium

Photos