#### **IROAST Members**

As of 31 March, 2022

#### **Director / Vice-Director**





Kazuki Takashima

#### **Distinguished Professors**









Konstantinos Kontis

Dmitri Aleks Molodov

**Tenure-track Professor / Associate Professors** 







Mitsuhiro Aida

Hiroki Matsuo Gaochuang Cai

**A**lumni









Takumi Higaki

Ruda Lee

**Project Assistant Professor/ Postdoctoral Researchers** 





Young Faculty Members for International Joint Research







Mizue Munekata FAST



Takahiro Hosono **FAST** 



Yuta Nakashima **FAST** 

\*FAST: Faculty of Advanced Science and Technology, Kumamoto University

\*IINa: Institute of Industrial Nanomaterials, Kumamoto University

\*CWMD: Center for Water Cycle, Marine Environment and Disaster Management, Kumamoto University

**Visiting Professors** 



U Rajendra Acharya Ngee Ann Polytechnic Singapore



José E. Andrade California Institute of Technology USA



Josep-Lluís Barona-Vilar University of Valencia Spain



Pouyan Boukany Delft University of Technology Netherlands



Olivier Boutin CNRS/Aix Marseille University France



Paul Bowen
The University of
Birmingham
UK



Pierre Breul CNRS/University of Clermont Auvergne France



Maria Jose Cocero
The University of
Valladolid
Spain



Marc De Boissieu CNRS/ Université Grenoble Alpes France



Patrice Delmas
The University of
Auckland
New Zealand



Martin
Dienwiebel
Karlsruhe Institute
for Technology
Germany



Martino Di Serio University of Naples Federico II Italy



Derek Elsworth The Pennsylvania State University USA



Carolina Escobar University of Castilla La Mancha Spain



Amir A. Farajian Wright State University USA



Etsuko Fujita Brookhaven National Laboratory USA



Tomonari Furukawa University of Virginia USA



Hamid Ghandehari University of Utah USA



Olivier Hamant INRA/ ENS de Lyon France



Christian Siegfried Hardtke University of Lausanne Switzerland



Jens Hartmann Universität Hamburg Germany



Yuichiro Himeda National Institute of Advanced Industrial Science and Technology Japan



Dragos Horvath CNRS/ University of Strasbourg, France



Ryushiro Kasahara Fujian Agriculture and Forestry University China



Yang Kim Kosin University Republic of Korea



Alexei Kuzmin University of Latvia Latvia



Ick Chan Kwon Korea Institute of Science and Technology (KIST) Republic of Korea



Youn-Woo Lee Seoul National University Republic of Korea



Pavel Lejček Institute of Physics of the Czech Academy of Sciences Czech Republic



Bo Liu University of California at Davis USA



Viren Ivor Menezes Indian Institute of Technology Bombay India



Matthieu Micoulaut CNRS/Sorbonne University France



Rahul Raveendran Nair The University of Manchester UK



Reiko Oda CNRS/University of Bordeaux France



Shie-Ming Peng National Taiwan University Taiwan



Ramesh S. Pillai University of Geneva Switzerland



Zoran Ren University of Maribor Slovenia



Christian Rentenberger University of Vienna Austria



Stelios Rigopoulos Imperial College London



Shirley Shen
Commonwealth
Scientific and
Industrial Research
Organisation
(CSIRO)
Australia



Atsushi Urakawa Delft University of Technology, Netherlands



Gioacchino Viggiani CNRS/Université Grenoble Alpes France



Thomas Waitz
University of Vienna
Austria



Andrew J. Whittle Massachusetts Institute of Technology (MIT) USA



Zhenghe Xu Southern University of Science and Technology China



Firuz Zare The University of Queensland Australia

#### **Visiting Associate Professors**



Tomoyasu Mani University of Connecticut USA



Hiroko Satoh University of Zurich Zwitzerland



Daniel P. Zitterbart Woods Hole Oceanographic Institution USA

## **Distinguished Professors (4)**

Name	Period of Appointment	Position/Affiliation
Konstantinos Kontis	November 1, 2018-	Professor School of Engineering University of Glasgow, UK
László Pusztai	April 1, 2017-	Scientific Advisor Wigner Research Centre for Physics Hungary
Dmitri Aleks Molodov	December 1, 2021-	Professor Institute of Physical Metallurgy and Metal Physics, RWTH Aachen University, Germany
Yufeng Zheng	May 1, 2017-	Professor Department of Materials and Engineering College of Engineering Peking University, China

### **Tenure-Track Professor/Associate Professors (3)**

Name	Period of Appointment	Former Position/Affiliation
<b>Mitsuhiro Aida</b> Professor	July 1, 2017-	Postdoctoral Researcher Department of Applied Biological Science Tokyo University of Science PhD: Kyoto University (1999)
Gaochuang Cai Associate Professor	October 1, 2021-	Assistant professor, Faculty of Engineering Department of Architecture, Fukuoka University PhD: The University of Tokyo (2016)
Hiroki Matsuo Associate Professor	June 1, 2021-	Researcher, School of Environment and Society, Tokyo Institute of Technology PhD: Kobe University (2014)

#### Alumni (4)

Name	Period of Appointment	Former Position/Affiliation & Current Position/Affiliation
Takumi Higaki Associate Professor	August1,2017- September 30, 2021	Research Associate Professor Graduate School of Frontier Sciences The University of Tokyo Faculty of Advanced Science and Technology (FAST), Kumamoto University PhD: The University of Tokyo (2009)
Takashi Ishida Associate Professor	June 1, 2016 - May 31, 2021	Postdoctoral Researcher Faculty of Advanced Science and Technology (FAST), Kumamoto University Faculty of Advanced Science and Technology (FAST), Kumamoto University PhD: Nara Institute of Science and Technology (2007)
Ruda Lee Associate Professor	January 1, 2017- December 31, 2021	Postdoctoral Researcher Department of Drug Discovery and Development Instituto Italiano Di Technologia, Italy Institute of Industrial Nanomaterials (IIna), Kumamoto University PhD: Korea University, Korea (2013)
Atsushi Sainoki Associate Professor	January 1, 2017- March 31, 2021	Postdoctoral Researcher Mine Design Laboratory, McGill University, Canada Faculty of Advanced Science and Technology (FAST), Kumamoto University PhD: McGill University, Canada (2014)

# Project Assistant Professor (1)

Name	Period of Appointment	Former Position/Affiliation
Akiko Nakamasu Higaki Laboratory	November 1, 2019- March 31, 2022 (Postdoctoral Researcher December 1, 2017- October 30, 2019)	Research Assistant Professor Faculty of Medical Science, Kyushu University  PhD: Ochanomizu University (2010)

## Postdoctoral Researchers (1)

Name	Period of Appointment	Former Position/Affiliation
<b>Mizuki Yamada</b> Aida Laboratory	October 1, 2019-	Researcher Institute of Vegetable and Floriculture Science National Agriculture and Food Research Organization PhD: Niigata University (2014)

## Young Faculty Members for International Joint Research (4)

Name	Period of Appointment	Partner Universities/Institutions
Takahiro Hosono Associate Professor FAST	June 1, 2019- March 31, 2022	Department of Earth and Planetary Science University of California, Berkeley USA
Kei Ishida Associate Professor	June 1, 2019- March 31, 2022	McGill University Canada
CWMD		University of California, Davis USA
Mizue Munekata Associate Professor	April 1, 2019- March 31, 2022	German Aerospace Center Germany
FAST		Institute of Aerodynamics and Flow Technology Germany
Yuta Nakashima	December 1, 2019- March 31, 2022	The Children's Hospital of Philadelphia USA
Associate Professor FAST		University of Pennsylvania USA

## **Visiting Professors (46)**

Name	Position/Affiliation	Host Professor
U Rajendra Acharya	Senior faculty member Ngee Ann Polytechnic, Singapore	Makiko Kobayashi FAST
José E. Andrade	Professor California Institute of Technology, USA	Jun Otani FAST
Josep-Lluís Barona-Vilar	Professor University of Valencia, Spain	Makoto Takafuji FAST
Pouyan Boukany	Associate Professor  Delft University of Technology, Netherlands	Hamid Hosano IINa
Olivier Boutin	Professor/Deputy Director of M2P2 CNRS/Aix Marseille University, France	Mitsuru Sasaki IINa
Paul Bowen	Deputy Pro-Vice-Chancellor/ Feeney Professor of Metallurgy The University of Birmingham, UK	Yoji Mine FAST
Pierre Breul	Professor University of Clermont Auvergne, France	Jun Otani FAST
Maria Jose Cocero	Professor The University of Valladolid, Spain	Tetsuya Kida FAST
Marc De Boissieu	Group Leader of SIMap CNRS/ Université Grenoble Alpes, France	Ichiro Akai IINa
Patrice Jean Delmas	Associate Professor The University of Auckland, New Zealand	Toshifumi Mukunoki FAST
Martin Dienwiebel	Professor Karlsruhe Institute for Technology, Germany	Yoji Mine FAST
Martino Di Serio	Professor University of Naples Federico II, Italy	Shinya Hayami FAST
Derek Elsworth	Professor The Pennsylvania State University, USA	Atsushi Sainoki IROAST
Carolina Escobar	Professor University of Castilla La Mancha, Spain	Shinichiro Sawa FAST

Amir A. Farajian	Professor Wright State University, USA	Hamid Hosano IINa
Etsuko Fujita	Senior Chemist Brookhaven National Laboratory, USA	Yutaka Kuwahara FAST
Tomonari Furukawa	Professor University of Virginia, USA	Makoto Kumon FAST
Hamid Ghandehari	Professor University of Utah, USA	Hamid Hosano IINa
Olivier Hamant	INRA Research Director RDP, ENS de Lyon, France	Shinichiro Sawa FAST
Christian Siegfried Hardtke	Professor University of Lausanne, Switzerland	Shinichiro Sawa FAST
Jens Hartmann	Professor Universität Hamburg, Germany	Takahiro Hosono FAST
Yuichiro Himeda	Prime Senior Researcher  National Insutitute of Advanced Industrial Science and Technoligy, Japan	Manabu Sugimoto FAST
Dragos Horvath	CNRS Research Director (DR2) University of Strasbourg, France	Manabu Sugimoto FAST
Ryushiro Kasahara	Professor Fujian Agriculture and Forestry University, China	Shinichiro Sawa FAST
Yang Kim	Professor Emeritus Kosin University, Republic of Korea	Shinya Hayami FAST
Alexei Kuzmin	Leading Researcher University of Latvia, Latvia	Laszlo Pusztai IROAST
Ick Chan Kwon	Principal Research Scientist  Korea Institute of Science and Technology (KIST)  Republic of Korea	Takuro Niidome FAST
Youn-Woo Lee	Professor Seoul National University, Republic of Korea	Mitsuru Sasaki IINa

Pavel Lejček	Professor Institute of Physics of the Czech Academy of	Sadahiro Tsurekawa
	Sciences, Czech Republic	FAST
Bo Liu	Professor University of California, Davis, USA	Takumi Higaki FAST
	, , ,	
Viren Ivor Menezes	Professor Indian Institute of Technology Bombay, India	Hamid Hosano IINa
Matthieu Micoulaut	Professor	Ichiro Akai
	CNRS/Sorbonne University, France	IINa
Rahul Raveendran Nair	Professor The University of Manchester, UK	Shinya Hayami FAST
Reiko Oda	Research Director CNRS/University of Bordeaux, France	Makoto Takafuji FAST
Shie-Ming Peng	Distinguished Chair Professor for Research National Taiwan University, Taiwan	Shinya Hayami FAST
Ramesh S. Pillai	Professor University of Geneva, Switzerland	Tokio Tani FAST
Zoran Ren	Professor University of Maribor, Slovenia	Kazuyuki Hokamoto IINa
Christian Rentenberger	Associate Professor University of Vienna, Austria	Mitsuhiro Matsuda FAST
Stelios Rigopoulos	Reader of Division "Thermofluids" (Associate Professor) Imperial College London, UK	Hamid Hosano IINa
Shirley Shen	Principal Research Scientist  Commonwealth Scientific and Industrial Research  Organisation (CSIRO), Australia	Youji Mine FAST
Atsushi Urakawa	Professor Delft University of Technology, Netherlands	Manabu Sugimoto FAST
Gioacchino Viggiani	Professor CNRS/Université Grenoble Alpes, France	Jun Otani FAST
Thomas Waitz	Associate Professor University of Vienna, Austria	Mitsuhiro Matsuda FAST

Andrew J. Whittle	Professor  Massachusetts Institute of Technology (MIT), USA	Jun Otani FAST
Zhenghe Xu	Dean, College of Engineering, Southern University of Science and Technology China	<b>Makoto Takafuji</b> FAST
Firuz Zare	Honorary Professor The University of Queensland, Australia	Hamid Hosano IINa

## **Visiting Associate Professors (3)**

Name	Position/Affiliation	Host Professor
Tomoyasu Mani	Assistant Professor University of Connecticut, USA	Yutaka Kuwahara FAST
Hiroko Satoh	Researcher University of Zurich (UZH), Zwitzerland	Manabu Sugimoto FAST
Daniel P. Zitterbart	Associate Scientist Woods Hole Oceanographic Institution, USA	Kei Toda FAST

<sup>\*</sup>The names of each list are arranged alphabetically by last name.

### Research Units (26)

### **Units of World-leading Researchers (14)**

Unit Name	Unit Coordinator	
Development of Nano and Supramolecular Materials	Shinya Hayami FAST	
RNA Biology	<b>Tokio Tani</b> FAST	
Plant Cell and Developmental Biology	Shinichiro Sawa FAST	
Nano-Organics and Nano-Hybrids	<b>Makoto Takafuji</b> FAST	
Nano-medicine and Drug Delivery System	Hamid Hosano IINa	
Nano-medicine and Theranostics	Takuro Niidome FAST	
Multiscale Modeling of Soil and Rock Materials Using X-ray CT	Jun Otani FAST	
Medical Application of X-ray CT		
-Quantification of Three Dimensional Vascular Network	Toshifumi Mukunoki FAST	
-MicroCT-based Quantification of Fibrosis and Vascularization in Pancreatic Tumor		
Advanced Structural Materials	Yoji Mine FAST	
Microstructure Analysis and Grain Boundary Engineering	Sadahiro Tsurekawa FAST	
Structure and Dynamics of Materials Using Quantum Beams	Ichiro Akai	
and Data-Driven Sciences	IINa  Takahiro Hosono	
Hydrological Environments	FAST (Kimpei Ichiyanagi FAST)	
Nano-materials for Energy Applications and Environmental Protection	Tetsuya Kida FAST (Armando T. Quitain Center for International Education)	

#### **Units of Young Researchers (12)**

Unit Name	Unit Coordinator
Quantitative Bioimaging	Takumi Higaki IROAST
Development of novel therapeutic strategy using iron targeted upconversion nanoparticles for Parkinson's disease	Ruda Lee IROAST
Deep Learning for Hydrology	Kei Ishida CWMD
<b>Environmental Impacts of Ionic Solutes</b>	Shin-Ichi Ohira FAST
Radio Astronomy	<b>Keitaro Takahashi</b> FAST
Plant Stem Cells and Regeneration	Mitsuhiro Aida IROAST
Development of microbially-aided carbon sequestration technology	Atsushi Sainoki IROAST
Advanced Biomedical Evaluation System	Makiko Kobayashi FAST
Bio-inspired Functional Molecular System	Yutaka Kuwahara FAST
Nanomaterials processing for medical, cosmetic, and environmental applications	Mitsuru Sasaki IINa
Ferroelectric Photovoltaics	Hiroki Matsuo IROAST (Yuji Noguchi FAST)
Next-Generation Design of Structures	Gaochuang Cai IROAST

<sup>\*</sup>FAST: Faculty of Advanced Science and Technology, Kumamoto University

<sup>\*</sup>IINa: Institute of Industrial Nanomaterials, Kumamoto University

<sup>\*</sup>CWMD: Center for Water Cycle, Marine Environment and Disaster Management, Kumamoto University