

## Application Information for Osaka University's Kondo Prize

### 1. About Kondo Prize

This prize was founded by parents' donation of Mr. Hiroshi Kondo who died an unexpected death by a traffic accident in April, 1993. According to their sincere wish to support the research activities of laser science, including the laser fusion their son, Hiroshi, intended to study, the prize was founded as a prize of Osaka University, in 2007, to encourage the researcher and promote their research activities by honoring an excellent technological development and excellent research papers of young scientists.

### 2. Fields to be awarded

Various fields of laser technology and its applications including the quantum beam physics, high energy density physics and inertial confinement fusion, which is described as "Laser Science" hereafter in this document.

### 3. Categories and Application Requirements

#### (1) Technological Contribution Award

There is no age limit (Applicants presently actively involved in laser engineering preferred). Teams of engineers who have perfected exceptional technologies and contributed to the development of laser engineering may also apply.

#### (2) Research Paper Award

Applicants must be under 40 years of age during the award year (as of Mar 31, 2023). However, the age limit may be raised to under 42 years of age if research had been suspended due to circumstances such as childbirth or the use of childcare leave.

### 4. Selection Policy

#### (1) Technological Contribution Award

This award is given to engineers who have supported the fundamental technology of laser science as recognition of their contribution, and as testimony of the expectation that further technological advancements are expected in the field, including improvement of the research environment for laser science in Japan. The selection committee will take the following points into consideration when making its decision.

- 1) Broad impacts of the technological results to other fields
- 2) Technological impacts in the field
- 3) Personal contribution towards technological improvement (when more than one person is involved)
- 4) Public introductory articles on technological results
- 5) Technological reports, records summarizing the results etc.
- 6) Letter of recommendation

#### (2) Research Paper Award

This award is given to young researchers from Japan or abroad who have made exceptional contributions to the research of laser science in Japan. The selection committee will take the following points into consideration when making its judgment.

- 1) Presentation status of academic theses, institute lectures, and international conference lectures etc.
- 2) Creativity level of the research, its future potential, and its impact on the field
- 3) Contribution of author in the research (Note: If there are co-authors, or if it is a group research or project research, judgment will be focused on individual contribution)
- 4) Benefits or information dissemination to other fields
- 5) Contributions to the field (Note: The situation of conference activities and interactions in the field will also be taken into consideration)
- 6) Letter of recommendation

### 5. How to apply

In principal, applicants are to have a referee. A candidate should have a recommendation by one referee. (For the Technological Contribution Award, teams of engineers who have perfected exceptional technologies and contributed to the development of laser science may also apply. However, the number of candidates is limited to 5 per application.)

### 6. Documents to be submitted

#### (1) Technological Contribution Award:

##### Individual application

- \* Application form
- \* Resume detailing past research history
- \* Letter of recommendation (1. See Note 1)
- \* Essay stating the applicant's past contributions and future goals in the field (1 to 2 pages, A4-size)

- \* 1 copy of a technological report, thesis, article etc. of the subject, if available (See Note 2). If more than 1 is available, a list of those documents is to be submitted. (A letter of explanation stating the detailed contributions of the candidate should be attached.)

#### Team application

- \* Application form
- \* Resume detailing the past research history of all members
- \* Letter of recommendation for all members as a team (1. See Note 1)  
(It should state that every member has contributed 100% as a team.)
- \* Essay stating each member's past contributions and future goals in the field (1 to 2 pages per member, A4-size)
- \* 1 copy of a technological report, thesis, article etc. of the subject, if available (See Note 2). If more than 1 is available, a list of those documents is to be submitted. (A letter of explanation stating the detailed contributions of the candidates should be submitted.)

#### (2) Research Paper Award:

- \* Application form
- \* Resume
- \* Letter of recommendation (1) (See Note 1)
- \* List of presented theses (In addition, please list the impact factor of the academic journal and the cited number in the paper on the achievement list of the thesis. We recommend using Web of Science for the search database, but if you use another database, please indicate so.)
- \* List of institute lectures and international conference lectures
- \* Thesis (1)

Applicants should send the originals of the documents listed above and 3copies of each document, except for the letter of recommendation, to the following address, or submit by e-mail.

In the case of e-mail, only documents in PDF format are accepted. All PDF files of the documents should be contained in a single, password protected ZIP archive file. If the file exceeds 4MB, please use the file transfer service recommended by your university/institution.

Email subject: ``Application documents for the 17th Osaka University Kondo Award''

File name: Applicant name

To: Planning Office

Institute of Laser Engineering, Osaka University

2-6 Yamadaoka, Suita-shi, Osaka 565-0871

- \*Write "Osaka University Kondo Prize Application Form Enclosed" in red ink.

Submission e-mail address : kikaku@ile.osaka-u.ac.jp

(Note 1) Refer to "10. Format for Letter of Recommendation"

(Note 2) It is not necessary for the applicant to be the author, if the applicant can clearly show the results of the equipment system developed by him/herself. In that event, provide an explanation on the technology directly linked to the concrete results.

#### 7. Application Deadline

Applications must be received by February13, 2023.

#### 8. Inquiries

Planning Office Institute of Laser Engineering, Osaka University

E-mail: kikaku@ile.osaka-u.ac.jp

#### 9. Selection Method

Selection will be conducted by a selection committee under the Joint Research Advisory Panel of the Osaka University's Institute of Laser Engineering.

#### 10. Format for Letter of Recommendation

The letter of recommendation is to be in Word format, A4-sized, and should include the following information. It is to be sealed and submitted by the referee.

##### (a) Technological Contribution Award

- Year, month and date the letter was written
- Name of referee
- Name of candidate and where he/she belongs: (1 name per line)
- Reason for recommendation: (within 1000 words in either Japanese or English. Take "4.Selection Policy"

into consideration when writing it. In particular, when writing about the research results of a group, ensure that the contributions of the candidate himself / herself are clearly specified.)

(b) Thesis Award

- Year, month and date the letter was written
- Name of referee
- Name of candidate and where he/she belongs:
- Reason for recommendation: (within 1000 words in either Japanese or English. Take “4.Selection Policy” into consideration when writing it. In particular, when writing about the research results of a group, ensure that the contributions of the candidate himself / herself are clearly specified.)

## 11. Past Winners

### 16<sup>th</sup> Kondo Prize Winners (2022)

<Technological Contribution Award>

Name: Drs Hiroaki Minamide, Nawata Kouji, Yu Tokizane, Yuma Takida, Takashi Notake

Winning Title: Development of terahertz wave generation and detection technology by backward wavelength conversion with nonlinear optics

Belonged to (during time of award): RIKEN Center for Advanced Photonics (RAP) Tera-Photonics Research Team

< Research Paper Award>

Name: Dr.Filchito Renee G. Bagsican

Winning Title: Terahertz Excitonics in Carbon Nanotubes: Exciton Autoionization and Multiplication

Belonged to (during time of award): Okinawa Institute of Science and Technology Graduate University

### 15<sup>th</sup> Kondo Prize Winners (2021)

<Technological Contribution Award>

None

< Research Paper Award>

Name: Dr.Yu-Chieh Lin

Winning Title:Optical parametric amplification of sub-cycle shortwave infrared pulses

Belonged to (during time of award):RIKEN Center for Advanced Photonics

### 14<sup>th</sup> Kondo Prize Winners (2020)

<Technological Contribution Award>

Name: Noboru Hasegawa, Hajime Okada, Toshiyuki Kitamura, Shuji Kondo, Katsuhiro Mikami

Winning Title: Development of high energy, high repetition rate pulsed laser technology for use in the outdoor field

Belonged to (during time of award): National Institutes for Quantum and Radiological Science and Technology, Kindai University

< Research Paper Award>

Name: Zhaoyang Li

Winning Title: Comprehensive research on analysis and control of spatiotemporal characteristics of ultra-intense short-pulse lasers

Belonged to (during time of award): Institute of Laser Engineering, Osaka University

### 13<sup>th</sup> Kondo Prize Winners (2019)

<Technological Contribution Award>

None

< Research Paper Award>

Name: Natsumi Iwata

Winning Title: Electron acceleration in dense plasmas heated by a picosecond relativistic laser

Belonged to (during time of award): Institute of Laser Engineering, Osaka University

Name: Mathieu Yuxi Fu

Winning Title: Development of high-energy mid-infrared femtosecond laser

Belonged to (during time of award): RIKEN Center for Advanced Photonics (RAP)

### 12<sup>th</sup> Kondo Prize Winners (2018)

<Technological Contribution Award>

None

< Research Paper Award>

Name: Tomoaki Kimura

Winning Title: Melting Temperatures of MgO under high pressure by micro-texture analysis

Belonged to (during time of award): Department of Earth Science, ETH Zurich, Geodynamics Research Center, Ehime University

Name: Mathieu Bailly-Grandvaux

Winning Title: Guiding of relativistic electron beams in dense matter by laser-driven magnetostatic fields

Belonged to (during time of award): Center for Energy Research, University of California, San Diego, USA

#### 11<sup>th</sup> Kondo Prize Winners (2017)

<Technological Contribution Award>

None

< Research Paper Award>

None

#### 10<sup>th</sup> Kondo Prize Winners (2016)

<Technological Contribution Award>

None

< Research Paper Award>

Name: Yuichi Inufushi

Winning Title: Use in Atomic Process Research of Development of X-ray Free Electron Laser Spectroscopic Techniques and High Energy Density State Substances

Belonged to (during time of award): Public Interest Foundation Corporation, Japan Synchrotron Radiation Research Institute, XFEL Utilization Division

#### 9<sup>th</sup> Kondo Prize Winners (2015)

<Technological Contribution Award>

Name: Ryo Yasuhara (and 2 others)

Winning Title: Development of Large Pulse and High Repetition Faraday Cells for Lasers using TGG Ceramics  
Belonged to (during time of award): National Institutes of Natural Sciences, National Institute for Fusion Science

< Research Paper Award>

Name: Keita Seto

Winning Title: Theoretical Study of Radiation Side Effects in High Intensity Laser Fields, Taking Nonlinear QED Vacuum Correction into Consideration

Belonged to (during time of award): Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH)

#### 8<sup>th</sup> Kondo Prize Winners (2014)

<Technological Contribution Award>

Name: Kana Fujioka

Winning Title: Development of High Performance Optical Material for High Intensity and High Output Lasers

Belonged to (during time of award): Promotion Center for Laser Technology

< Research Paper Award>

Name: Nobuhisa Ishii

Winning Title: Study on Coherent Soft X-Ray Sources Using Optical Parametric Chirped Pulse Amplification  
Workplace (during time of award): Institute for Solid State Physics of the University of Tokyo Laser and Synchrotron Research Center

< Research Paper Award>

Name: Sosuke Ono

Winning Title: Chemical Composition of Gases Produced from Meteorite Collisions and Mass Extinction of Life Forms near the End of the Cretaceous Period

Belonged to (during time of award): Chiba Institute of Technology, Planetary Exploration Research Center

#### 7<sup>th</sup> Kondo Prize Winners (2013)

<Technological Contribution Award>

Name: Hiromitsu Tomizawa

Winning Title: Development of High Performance Optical Material for High Intensity and High Output Lasers

Belonged to (during time of award): Independent Administrative Institution, Institute of Physical and Chemical

Research (Harima) Radiation Science Integrated Research Center  
< Research Paper Award >  
None

6<sup>th</sup> Kondo Prize Winners (2012)

<Technological Contribution Award>

Name: Takashi Yatsui

Winning Title: Industrial Application Study on Near-Field Etching

Belonged to (during time of award): University of Tokyo Graduate School of Engineering

< Research Paper Award >

Name: Hideki Hirori

Winning Title: Development of Super High Intensity Terahertz Light Source and its Application to Nonlinear Optical Phenomena

Belonged to (during time of award): Kyoto University, Institute for Integrated Cell-Material Sciences

5<sup>th</sup> Kondo Prize Winners (2011)

<Technological Contribution Award>

Name: Shigeki Tokita

Winning Title: Study on Laser Accelerating Electron Bunches Using Compression Method and Application of the Electron Diffraction

Belonged to (during time of award): Kyoto University Institute for Chemical Research

< Research Paper Award >

Name: Liu Jun

Winning Title: Study on Contrast Improvement of Ultrashort Pulse Laser Using Four Wave Mixing

Belonged to (during time of award): University of Electro-Communications Advanced Ultrafast Laser Research Center

4<sup>th</sup> Kondo Prize Winners (2010)

<Technological Contribution Award>

Name: Tetsuji Kawasaki

Winning Title: Unique Adjustment Method for Large Optional Cells in Diamond-type Pulse Compressors

Belonged to (during time of award): Osaka University Institute of Laser Engineering

<Research Paper Award >

Name: Eiji Takahashi

Winning Title: Study on Higher Output of Higher Harmonics Using Mid-infrared Ultra-short Pulse Laser Light

Belonged to (during time of award): Independent Administrative Institution, Institute of Physical and Chemical Research

3<sup>rd</sup> Kondo Prize Winners (2009)

<Technical Award>

Name: Seiji Miyanaga

Winning Title: Operation Management Technology of Super Computer System for Laser Engineering

Belonged to (during time of award): Osaka University, General Affairs Department, General Affairs Division, PMO Preparation Office

<Research Paper Award >

Name: Shinsuke Fujioka

Winning Title: Study on Physics of Laser Plasma Radiation Fluid and Its Application

Belonged to (during time of award): Osaka University Institute of Laser Engineering

2<sup>nd</sup> Kondo Prize Winners (2008)

<Technical Award>

Name: Masashi Yoshimura

Winning Title: Contribution to Practical Application of Nonlinear Optical Crystals

Belonged to (during time of award): Osaka University Graduate School of Engineering

<Research Paper Award >

Name: Takao Fuji

Winning Title: Study on Generation of Light with Multiple Cycles in Mid-infrared Region

Belonged to (during time of award): Independent Administrative Institution, Institute of Physical and Chemical Research

1<sup>st</sup> Kondo Prize Winners (2007) \*both were winners of the Science Award

Name: Norimasa Ozaki

Winning Title: Study on Equation of High Pressure State Caused by Laser Shock Waves

Belonged to (during time of award): Osaka University Graduate School of Engineering

Name: Takeshi Higashiguchi

Winning Title: Study on Application of Laser-Generated Plasma to Extreme Ultraviolet Light Source

Belonged to (during time of award): Utsunomiya University Graduate School of Engineering

## Osaka University Kondo Prize Application Form

To: Osaka University's Kondo Prize Selection Committee

I recommend the following person as a candidate for the 17<sup>th</sup> (2023) Osaka University's Kondo Prize.

Candidate Name	
Organization Candidate Belongs To	
Referee Name • Organization He/She Belongs To • Contact	
Application Category (Circle one)	Technological Contribution Award • Research Paper Award
Application Title (Study on XX, Technology of YY etc.)	
Third Party Whose Opinions Can Be Sought (See Note)	

(Note) Clearly state the name, organization details (workplace, position and address) and contact information (phone, fax, email etc.) of 1 third party whose opinions on the field can be sought.