

# The 75th JSAP Autumn Meeting 2014

## Call for Papers

## Submission Guidelines

### The 75th JSAP Autumn Meeting 2014

Dates: September 17 (Wed.) – 20 (Sat.), 2014

Venue: Sapporo Campus, Hokkaido University

(Kita 8, Nishi 5, Kita-ku, Sapporo, Hokkaido, 060-0808 Japan)

### 3 Steps to Contribute Presentations

#### Join JSAP

##### Regular Membership

Admission Fee: 10,000 JPY

Annual Due\*: 10,000JPY

\*Annual due will be waived for the first year.

##### Student Membership

Admission Fee: 6,000JPY

Annual Due\*: 6,000 JPY

\*Annual due will be waived for the first year.

#### Submit

##### Submission Deadline:

**June 12, 2014 (5:00pm, JST)**

No late submission is accepted after the deadline.

**Online submission will be available on May 23, 2014.**

#### Register

##### Advanced

JSAP Regular Member : 8,000 JPY

Student: 3,000 JPY

Non-member: 15,000 JPY

##### Onsite

JSAP Regular Member : 12,000 JPY

Student : 5,000 JPY

Non-member: 20,000 JPY

**Online pre-registration will be available from May 23, 2014 until August 25, 2014.**

#### NOTICE

JSAP Members can register only after the payment of this year's membership fee.  
Please complete the payment before registration.

# Call for Papers

Papers are solicited for the following sessions;

1) Regular Sessions 2) Joint Sessions and 3) Symposium as shown in **Table 1-3**.

The date and section of your presentation will be determined by our program committee.

Your papers may be forwarded from a regular session to a symposium and vice versa.

**Table 1. Regular Sessions**

Category	Section	
1 Applied Physics in General	1.1	Interdisciplinary and general physics
	1.2	Education
	1.3	Novel technologies and frontier engineering science
	1.4	Energy conversion and storage
	1.5	Resources and environment
	1.6	Magnetic field and its application
	1.7	Instrumentation and measurement, metrology
	1.8	Ultrasonic
2 Ionizing Radiation	2.1	Radiation physics and detectors
	2.2	Detection systems
	2.3	Application of radiation, radiation generators and technologies
3 Optics and Photonics  Former 3,4,5 categories were merged in to Category 3.	3.1	Basic optics and frontier of optics
	3.2	Materials and equipment optics
	3.3	Information photonics and image engineering
	3.4	Biomedical optics
	3.5	Laser devices and materials
	3.6	Ultrashort-pulse and high-intensity lasers
	3.7	Laser processing
	3.8	Optical measurement technology and devices
	3.9	THz technology
	3.10	Optical quantum physics and technologies
	3.11	Photonic structures and phenomena
	3.12	Nanoscale optical science and near-field optics
	3.13	Semiconductor optical devices
	3.14	Optical control devices and optical fiber
	3.15	Silicon photonics
6 Thin Films and Surfaces *English session is scheduled in the section 6.4.	6.1	Ferroelectric thin films *will be held as a joint session with 9.1
	6.2	Carbon-based thin films
	6.3	Oxide-based electronics
	6.4	New thin-film materials *English session (along with Japanese session) is scheduled in this section.
	6.5	Surface physics and vacuum
	6.6	Probe microscopy
7 Beam Technology and Nanofabrication	7.1	X-ray technologies
	7.2	Electron microscopes, evaluation, measurement and analysis
	7.3	Lithography
	7.4	Nanoimprint
	7.5	Particle/photon-beam-induced surface reactions
	7.6	Ion beams
	7.7	Vacuum nanoelectronics and electron sources
	7.8	New beam-application technologies
8 Plasma Electronics *English session is scheduled in this category. If you choose "English" as the presentation language, your presentation will be preferentially programmed in the English session.	8.1	Plasma production and control
	8.2	Plasma measurements and diagnostics
	8.3	Plasma deposition of thin film and surface treatment
	8.4	Plasma etching
	8.5	Plasma nanotechnology
	8.6	General plasma phenomena, emerging area of plasmas and their new applications
9 Applied Materials Science	9.1	Dielectrics, ferroelectrics *will be held as a joint session with 9.1
	9.2	Nanowires, nanoparticles
	9.3	Nanoelectronics
	9.4	Thermoelectric conversion
	9.5	New functional materials and new physical properties

**Table 1. Regular Sessions (continued)**

Category	Section	
10 Spintronics and Magnetism <i>*English presentations are welcomed in this category. Outstanding presentations by student speakers will be awarded by Professional Group of Spintronics.</i>	10.1	Creation of new materials
	10.2	Spin torque, spin current, circuits, and measurement technologies
	10.3	Giant magnetoresistance (GMR), tunnel magnetoresistance (TMR) and magnetic recording technologies
	10.4	Semiconductors, organic, optical, and quantum spintronics
11 Superconductivity	11.1	Fundamental properties
	11.2	Thin films, thick films, coated conductors and thin film crystal growth
	11.3	Critical current, superconducting power applications
	11.4	Analog application and its related technologies
	11.5	Junction, circuit fabrication process and digital applications
12 Organic Molecules and Bioelectronics	12.1	Fabrications and Structure Controls
	12.2	Characterization and Materials Physics
	12.3	Functional materials and novel devices
	12.4	Organic light-emitting devices and organic transistors
	12.5	Organic solar cells
	12.6	Nanobiotechnology
	12.7	Medical engineering and biochips
13 Semiconductors A (Silicon) <i>*English session is scheduled in the section 13.5.</i>	13.1	Basic Properties, Surface and Interface Phenomena, and Simulation
	13.2	Insulator technology
	13.3	Si process, interconnect, MEMS, integration
	13.4	Devices/Integration Technologies
	13.5	Si-English Session <i>*All-English session</i>
14 Semiconductors B (Exploratory Materials, Physical Properties, Devices)	14.1	Physical properties of exploratory materials
	14.2	Ultrathin films and quantum nanostructures
	14.3	Electron devices and Process technology
	14.4	Optical properties and light-emitting devices
	14.5	Compound solar cells
15 Crystal Engineering	15.1	Bulk crystal growth
	15.2	II-VI-group crystals and multicomponent crystals
	15.3	III-V-group epitaxial crystals
	15.4	III-V-group nitride crystals
	15.5	IV-group crystals and IV-IV-group mixed crystals
	15.6	IV-group-based compounds
	15.7	Fundamentals of epitaxy
	15.8	Crystal evaluation, impurities and crystal defects
16 Amorphous and Microcrystalline Materials	16.1	Fundamental properties and their evaluation in disordered materials
	16.2	Processing technologies and devices
	16.3	Bulk, thin-film and other silicon-based solar cells
17 Nanocarbon Technology	17.1	Growth technology
	17.2	Structural control and process
	17.3	Exploration of new functions and evaluation of basic properties
	17.4	Device application
18 JSAP-OSA Joint Symposia <i>*All-English session</i>	18.1	Plasmonics
	18.2	Bio- and Medical Photonics
	18.3	Laser Manufacturing
	18.4	Optical Micro-sensing, Manipulation, and Fabrications
	18.5	Opto-electronics
	18.6	Information Photonics
	18.7	Laser Photonics — XFEL and ultrafast optics —
	18.8	Carbon Photonics

**Table 2. Joint Sessions**

Joint Session K "Wide bandgap oxide semiconductor materials and devices"	21.1	This is a joint session of 6.3 Oxide-based electronics, 6.4 New thin film materials in 6. Thin Films and Surfaces and 15.2 II-VI-group crystals and multicomponent crystals in 15. Crystal Engineering.
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**Table 3. Symposia**

Date		Title
Sep. 17 (Wed.)	31.1	Interfacial nano electrochemistry: Research frontiers of semiconductor wet processes
	32.1	Phase problem in the analysis of buried interfaces by X-ray reflectivity and surface X-ray scattering - Towards new research with coherent light sources
	33.1	Low-Temperature Growth of Group-IV Semiconductors on Insulator - Emerging New Crystallization Techniques -
	34.1	Current situation and issues of thin-film silicon solar cell technologies
	35.1	Japan-Korea Joint Symposium on Semiconductor Physics and Technology – Nano-carbon materials including graphene –
Sept. 18 (Thu.)	36.1	Activity of the scientific enlightenment including upbringing of the student
	37.1	Micro and nano behavior of bio material surfaces and its application
	38.1	Oxide electronics at solid-liquid interfaces: Chemistry and device applications
	39.1	Surface reaction control by atomic and molecular beams, its development and application
	40.1	Computer Simulations for Plasma Processing (state-of-the-art plasma modelling)
	41.1	Frontier of Spintronic Materials and Devices
	42.1	Present and Future of Functional atomic thin film research
Sep. 19 (Fri.)	43.1	応用物理に期待される資源リサイクルとエネルギー問題 (English title TBA)
	44.1	Behavior of nuclear fuel and fission products during severe accident and activities on decontamination
	45.1	量子計測技術における新展開 (English title TBA)
	46.1	New Frontiers and Future Perspectives in Surface Reaction Observation Using Synchrotron Radiation
	47.1	Innovation in R&D of the Flexible Electronics -Toward the Inorganic Flexible Devices-
	48.1	Materials Science of Singularity in Nitride semiconductors -Characterization and Crystallography-

## Submission Deadline

**Thursday, June 12, 2014 (5:00pm, JST)**

**\*No late submission is accepted.**

### JSAP Young Scientist Oral Presentation Award

JSAP Young Scientist Oral Presentation Award will be presented to young JSAP members (under 33 years of age as of April 1, 2015) who have presented outstanding papers .

To apply for the award, please select “apply” upon online submission. Applicants for the award will be indicated as such in the program.

Please also see the guidelines on page 6.

### Poster Awards

Poster Awards will be given to the outstanding posters. The nominees for Poster Awards will be selected by our program committee. No entry is required.

The authors of the nominated posters will be informed beforehand. The next screening will be done during the first 30 minutes of the session. The presenting authors of the nominated posters should be present in front of their posters during that time. Selection committee will vote and decide the final winner.

The individuals eligible for the award should be JSAP members at the time of their presentation.

Non-member co-authors should apply for our membership before their presentation if they wish to receive the award.

Please also see JSAP Poster Awards Provision on page 7.

# Submission Guidelines (for contributed papers)

## 1 Qualification

Speakers of contributed presentation (oral and poster presentations) should be JSAP Official Members, JSAP Student Members and the members of JSAP's partner societies\*.

\*JSAP's partner societies: American Physical Society (APS), European Optical Society (EOS), European Physical Society (EPS), Institute of Physics (IOP), Korean Physical Society (KPS), Optical Society of America (OSA), Optical Society of Korea (OSK), Physics Education Society of Japan (PESJ), Physical Society of Republic of China (PSROC), Société Française de Physique (SFP), International Society for Optical Engineering (SPIE) and Taiwan Photonics Society (TPS).

The maximum number of submission per person is 3. If you wish to make 4 or more presentations, please submit a document explaining that there is no overlapping in the contents.

## 2 Abstract submission

All abstracts must be submitted via online submission system.

Online submission system will be available on May 23, 2014.

<http://meeting.jsap.or.jp/eng/entry.html>

**Submission Deadline: Thursday, June 12, 2014 (5:00pm, JST)**

**(No late submission is accepted under any circumstances.)**

## 3. Instructions for preparing abstracts (PDF)

Abstracts (PDF) are compiled into a DVD-ROM without any change. Please prepare easy-to-read abstracts according to the instructions below.

If you submit papers in joint names, please obtain consent from all authors. Also, please obtain an approval from your employer if necessary.

- 1) Title: Make it brief and precise. "Research on" should be omitted.
- 2) Affiliation and name: Use an abbreviation of your affiliation.
- 3) E-mail address: Provide e-mail addresses of the presenting author.
- 4) Main text: Provide only the summary of your presentation (original materials only) and the supporting data that is considered particularly important for leading the conclusion. Provide figures and tables with English captions.
- 5) Use one or two column format. Figures and tables can be in color.
- 6) Use the template on the website below to ensure that the abstract is correctly formatted.

<https://www.gakkai-web.net/gakkai/jsap/en/template.html>

## 4. Handling of abstract (PDF)

- 1) Our program committee draws up a program according to speakers' requests. However, the program committee may forward your abstract to another category for the benefit of the overall program.
- 2) Notification of program number: You will be informed of the program number via e-mail early July. The conference program will be available on the conference website in mid July and in the August issue of our member journal "OYO BUTURI".
- 3) JSAP holds the copyright on the submitted abstracts and all the submitted abstracts will be included in the abstracts DVD-ROM and uploaded on the online conference program.
- 4) All the abstracts will be stored in the database of the National Institute of Informatics without any change.
- 5) The abstracts submitted to the JSAP-OSA Joint Symposia will be published in OSA's Optics InfoBase. JSAP grants to OSA a perpetual, non-exclusive, royalty-free license to use them in any type of media including print or electronic.
- 6) Each author is responsible for the contents of their abstracts and the information on their application form.
- 7) JSAP will not accept any abstracts that  
include contents that is not relevant to the field of applied physics (in a broad sense)  
do not comply with this abstract submission guidelines  
include contents that may damage our trust and dignity

## 5. Instructions for online submission

- \*Please check the qualifications mentioned in **1 Qualification**. Non-members should apply for JSAP membership first.
- \*Heavy online traffic will be expected around the day of the submission deadline. Please submit your abstracts as early as possible.

### <Application>

- Please choose the type of presentation from “Poster”, “ Oral” or “Either is fine”. We cannot guarantee to meet your request due to the room capacity.
- A completion screen will appear when your data is properly registered. Presentation ID and Presentation Password will be issued, and a confirmation email will be sent to the registered e-mail address. Please print out the completion screen since the information is required to confirm or modify your registered data or to submit your abstracts.
- Make sure to check if you received a confirmation email. Unless, your data may not be properly registered. In that case, please read “Frequently Asked Questions (FAQs)” on the website.

### <Uploading abstract (PDF)>

- The maximum size of PDF files should be 700 KB.
- Make sure that you finish the application before uploading PDF files.
- Do not use any file security system for the PDF file.
- Failure to submit abstracts by the submission deadline will result in the cancellation of the application.

### <Confirmation/Modification>

- You can confirm and modify the registered data before the submission deadline.
- Any modifications of the registered data after the deadline are not accepted under any circumstances.

### <Replacement of PDF file>

- You can replace the submitted abstract with a updated one until the submission deadline.
- Any replacement of the abstracts after the deadline are not accepted under any circumstances.

### <Cancellation of presentation>

- Presentation applications can be cancelled until the submission deadline .
- Cancellation requests after the deadline are not accepted under any circumstances.

## 6. Presentation method (contributed presentation)

### 1. Oral presentation and short oral presentation

Oral and short oral presentations will be given using a PC projector. JSAP will prepare PCs with the following specifications; Windows7 Pro with Microsoft Power Point 2007. Presenters may bring your own PCs.

### 2. Poster presentation

Presenters put up posters, figures, tables, and photographs in a designated display space (**180 cm (H) × 90 cm (W) for one presentation**). Presenters are required to answer questions from attendees during their session time.

## 7. Presentation time

### 1. Oral presentation

Oral presentations are assigned 15 minutes. (presentation for 10 minutes, Q&A for 5 minutes).

### 2.1 Poster presentation

Poster presentations are assigned 2 hours.

core time: the first half for speakers with an odd presentation number

the last half for speakers with an even presentation number

### 2.2 Poster presentation with short presentation

A short oral presentation (2-minute, no Q&A session) and poster presentation.

## Solicitation for 37th Young Scientist Oral Presentation Awards

Young Scientist Oral Presentation Awards seek to honor young JSAP members whose presentations are considered to be outstanding enough to contribute to the development of applied physics. We will be waiting for your application.

### Qualifications for 37th Young Scientist Oral Presentation Award:

Individuals eligible for Young Scientist Oral Presentation Awards are JSAP members who gave distinguished contributed presentations (including poster presentations) during the 75th JSAP Autumn Meeting 2014 which would contribute to the development of applied physics. The applicants should meet the qualifications below:

- 1) Under 33 years of age as of April 1, 2015
- 2) Lead author of their paper
- 3) Registered speaker who actually made the presentation
- 4) Applied for Young Scientist Oral Presentation Award upon submission

The number of awarded presentations is, in principle, limited to 1% or less of the total number of contributed presentations.

### Application procedure:

Please apply upon submission with the required information.

### Awarding ceremony:

The awarding ceremony will be held during The 62nd JSAP Spring Meeting 2015. The awardees will receive award certificates and commemorative gifts.

### Commemorative speech:

The awardees can present commemorative speeches during The 62nd JSAP Spring Meeting 2015. The awardees will be notified of the details separately.

### Application deadline:

Thursday, June 12, 2014 (5:00 pm, JST)

Please read the following provision before applying for the award.

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### JSAP Young Scientist Oral Presentation Awards Provision

1. This provision provides the guidelines concerning JSAP awards to its young members.
2. This awards are designed to honor young JSAP members for their outstanding contributed presentations which would contribute to the development of applied physics.
3. Individuals eligible for Young Scientist Oral Presentation Awards shall be JSAP members who gave outstanding contributed presentations (including poster session presentations) during the spring and autumn meetings which would contribute to the development of applied physics. The individuals should not have previously received this award, and should meet the following qualifications:
  - 1) Under 33 years of age as of the succeeding April 1st
  - 2) Lead author of their paper
  - 3) Registered as a speaker and actually made the presentation at the meeting
  - 4) Applied for Young Scientist Oral Presentation Award upon submission (only one application per person allowed)
4. Individuals who are not JSAP members (i.e., members of JSAP Division, members of partner societies or non-members) are not eligible for the award.
5. The awards shall be presented at the next annual meeting and the list of awardees will be posted.
6. The awardees shall receive a certificate issued by the President of JSAP and a commemorative gift.
7. The award shall be given under the name of the incumbent President of JSAP at the time of the awarding.
8. JSAP Young Scientist Oral Presentation Awards Committee shall select the awardees, in principle, up to 1% of the total number of contributed presentations in the annual meeting, and recommend them to the Board along with the reasons for the recommendation.
9. The Board shall discuss the committee's recommendation and decide the awardees.
10. The Board shall immediately notify the awardees of the decision and officially announce the awardees in our member journal "OYO BUTURI".
11. This provision can be amended by the approval of the Board.

### Supplementary provision

1. This provision has been determined by the Board on February 23, 1996.
  2. This provision has been in effect since April 1, 1996.
- It was partially amended on November 20, 2007.

### **JSAP Poster Awards Provision**

1. This provision provides the guidelines concerning JSAP Poster Awards.
2. JSAP Poster Awards are designed to honor JSAP members for their outstanding poster presentations which would contribute to the development of applied physics.
3. The award shall be given to the outstanding poster presentations given during JSAP's annual meetings which would contribute to the development of applied physics. The individuals eligible for the award should meet the following qualifications:
  - 1) JSAP members at the point of presentation
  - 2) Registered as authors upon submission
4. Individuals who are not JSAP members (i.e., members of JSAP Division, members of partner societies or non-members) are not eligible for the award.
5. The selection process of the award shall be specified in a separate bylaw.
6. The number of awarded posters shall be up to 2% of the total number of poster presentations.
7. The awardees shall receive a certificate issued by the President of JSAP and a commemorative gift.
8. The awards shall be given under the name of the incumbent President of JSAP at the time of the awarding.
9. The awarded posters shall be displayed at the venue during the meeting.
10. The awarded posters shall be reported to Annual Meetings Planning and Operations Committee and the Board, along with the reasons for the selection.
11. This provision can be amended by the approval of the Board.

#### **Supplementary provision**

1. This provision has been approved by the Board on 15 February 2013.
2. This provision has been in effect since 15 February 2013.