

The
77th

JSAP Autumn Meeting, 2016

第77回 応用物理学会秋季学術講演会

September 13(tue.)~16(fri.), @

(Niigata City)



Call for Papers Submission Guidelines

3 Steps to Contribute a Presentation

Join JSAP

Regular Membership

Admission Fee: 10,000 JPY

Annual Due*: 10,000 JPY

*Annual due will be waived for the first year.

Graduate Student/ Student Membership

Admission Fee: 3,000JPY

Annual Due*: 3,000 JPY

*Annual due will be waived for the first year.

Submit

Submission Deadline:

**June 28 (Tue.), 2016
(17:00, JST)**

No late submission is accepted after the deadline.

Online submission will be available in mid May.

Register

Registration Deadline:

**June 28 (Tue.), 2016
(17:00, JST)**

***The conference registration fees has been revised.**

Advanced

JSAP Regular Member : 12,000JPY

JSAP Senior Member: 4,000 JPY

Student: 3,000 JPY

Partner Society Member: 12,000JPY

Non-member: 23,000 JPY

Onsite

JSAP Official Member : 18,000JPY

JSAP Senior Member: 7,000 JPY

Student : 5,000 JPY

Partner Society Member: 18,000JPY

Non-member: 30,000 JPY

Online pre-registration will be available in mid May.

NOTICE

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

Call for Papers

Papers are solicited for the following sessions (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 Interdisciplinary Physics and Related Areas of Science and Technology	1.1	Interdisciplinary and general physics
	1.2	Education
	1.3	Novel technologies and interdisciplinary engineering
	1.4	Energy conversion and storage, resources and environment
	1.5	Instrumentation, measurement and Metrology
	1.6	Ultrasonics
2 Ionizing Radiation	2.1	Radiation physics and detector fundamentals
	2.2	Detection systems
	2.3	Application, radiation generators, new technology
3 Optics and Photonics	3.1	Basic optics and frontier of optics
	3.2	Equipment optics and materials
	3.3	Information photonics and image engineering
	3.4	Biomedical optics
	3.5	Laser system and materials
	3.6	Ultrashort-pulse and high-intensity lasers
	3.7	Laser processing
	3.8	Optical measurement, instrumentation, and sensor
	3.9	Terahertz technologies
	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 fibers
	3.15	Silicon photonics
4 JSAP-OSA Joint Symposia <i>*All-English session</i>	4.1	Plasmonics
	4.2	Bio- and Medical Photonics
	4.3	Optical Micro-sensing, Manipulation, and Fabrications
	4.4	Opto-electronics
	4.5	Information Photonics
	4.6	Nanocarbon and 2D Materials
	4.7	Terahertz Photonics
	4.8	Strong Light Excitation Phenomena Applied to Materials and Bio Engineering
6 Thin Films and Surfaces	6.1	Ferroelectric thin films
	6.2	Carbon-based thin films
	6.3	Oxide electronics
	6.4	Thin films and New materials
	6.5	Surface Physics, Vacuum
	6.6	Probe Microscopy
7 Beam Technology and Nanofabrication	7.1	X-ray technologies
	7.2	Applications and technologies of electron beams
	7.3	Micro/Nano patterning and fabrication
	7.4	Buried interface sciences with quantum beam
	7.5	Atomic/molecular beams and beam-related new technologies
	7.6	Ion beams
8 Plasma Electronics <i>*All-English session is scheduled in the section 8.8</i>	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	Plasma life sciences
	8.7	Plasma phenomena, emerging area of plasmas and their new applications
	8.8	Plasma Electronics English Session <i>*All-English Session</i>
9 Applied Materials	9.1	Dielectrics, ferroelectrics
	9.2	Nanowires and nanoparticles
	9.3	Nanoelectronics
	9.4	Thermoelectric conversion
	9.5	New functional materials and new phenomena

Table 1. Regular Sessions (continued)

Category	Section	
10 Spintronics and Magnetics <i>*English presentations are welcomed in this category. Outstanding presentations by student speakers will be awarded by Professional Group of Spintronics.</i>	10.1	Emerging materials in spintronics and magnetics (excluding semiconductors)
	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
	10.5	Application of magnetic field
11 Superconductivity	11.1	Fundamental properties
	11.2	Thin and thick superconducting films, coated conductors and film crystal growth
	11.3	Critical current, superconducting power applications
	11.4	Analog applications and their related technologies
	11.5	Junction and circuit fabrication processes, 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	Biomedical engineering and biochips
13 Semiconductors <i>*All-English session is scheduled in the section 13.6.</i>	13.1	Fundamental properties, surface and interface, and simulations of Si related materials
	13.2	Exploratory materials, physical properties, devices
	13.3	Insulator technology
	13.4	Si wafer processing /MEMS/Integration technology
	13.5	Semiconductor devices and related technologies
	13.6	Semiconductor English Session <i>*All-English Session</i>
	13.7	Nano structures and quantum phenomena
	13.8	Compound and power electron devices and process technology
	13.9	Optical properties and light-emitting devices
	13.10	Compound solar cells
15 Crystal Engineering	15.1	Bulk crystal growth
	15.2	II-VI and related compounds
	15.3	III-V-group epitaxial crystals/Fundamentals of epitaxy
	15.4	III-V-group nitride crystals
	15.5	Group IV crystals and alloys
	15.6	Group IV Compound Semiconductors (SiC)
	15.7	Crystal evaluation, impurities and crystal defects
16 Amorphous and Microcrystalline Materials	16.1	Fundamental properties, evaluation, process and devices in disordered materials
	16.2	Energy harvesting
	16.3	Bulk, thin-film and other silicon-based solar cells
17 Nanocarbon Technology	17.1	Carbon nanotubes & other nanocarbon materials
	17.2	Graphene
	17.3	Layered materials

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.
Joint Session M "Phonon Engineering"	22.2	This is a joint session of 9.4 Thermoelectric conversion, 13.7 Nano structures and quantum phenomena and 17 Nanocarbon Technology.

Table 3. Symposia

Dates	Related Category
	Symposium Title
Sept. 13 (Tue.)	1. Interdisciplinary Physics and Related Areas of Science and Technology
	Development of Classes for Enhancing Learner's Motivation Practice Cases leading to Active Learning
	3. Optics and Photonics
	Thermonanophotonics
	6. Thin Films and Surfaces
	30 years anniversary for Nobel prize of STM and development of AFM
	6. Thin Films and Surfaces
	Active Woman Researchers in the Field of Surface and Thin Film
	6. Thin Films and Surfaces
	Toward future applications of oxides electronics; past, present and future
	10. Spintronics and Magnetics
	Material processing using magnetic field effect on feeble magnetic
	12. Organic Molecules and Bioelectronics
	English session: Joint symposium on Nanobiotechnology and Biosensing
	12. Organic Molecules and Bioelectronics
	Current Trends and Issues in Nanointerface Phenomena and the Characterization Techniques
	13. Semiconductors
	New characterization technologies for functional properties of multinary compounds — new insight into development of multinary compound devices —
15. Crystal Engineering	
Recent topics of point defects in semiconductor crystals	
Sept. 14 (Wed.)	2. Ionizing Radiation
	Recent progress of radiaiton measurement by a passive-type detector in medical applications
	3. Optics and Photonics
	Symposium of Photonics Division, "Researchers pioneering next-generation photonics"
	3. Optics and Photonics
	Hybrid Quantum Information Science and Technology
	6. Thin Films and Surfaces
	Classification and designation on carbon based films as diamond-like carbon (DLC) films
	8. Plasma Electronics
	Cutting-edge plasma diagnostics for deeper understanding and control of atmospheric and multi-phase plasmas
	13. Semiconductors
	Crystallization of IV element Semiconductor thin-film and Deffects control
	13. Semiconductors
	IoT/IoE Device Technologies for AI and Deap Learning Era
	15. Crystal Engineering
	Recent Progress of Nitride Semiconductor -Toward Defectless Crystal and Devices-
	16. Amorphous and Microcrystalline Materials
	Present status and future prospects on reliability of photovoltaic modules
17. Nanocarbon Technology	
Trend of Functional Atomic Thin Film Research — Thin Film Growth —	

Table 3. Symposia(continued)

Sept. 15 (Thu.)	1. Interdisciplinary Physics and Related Areas of Science and Technology
	Materials and Physics of Solar-Hydrogen Production Catalysts
	3. Optics and Photonics
	Aspects on Photonic Intelligence
	10. Spintronics and Magnetism
	Physics of the New Spintronics Phenomena for Future Applications
	12. Organic Molecules and Bioelectronics
	Electronic devices and biology: towards a prosperous symbiosis
	15. Crystal Engineering
	Materials Science and Advanced Electronics Created by Singularity of Nitride Semiconductors
Sept. 16 (Fri.)	9. Applied Materials
	Thermoelectric conversion in the present and future: How much can we increase ZT?

Submission Deadline

June 28 (Tue.), 2016 (5:00pm, JST)

***No late submission is accepted.**

JSAP Young Scientist Presentation Award

JSAP Young Scientist Presentation Award will be presented to young JSAP members (under 33 years of age as of April 1, 2017) 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.

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.

Submission Guidelines (for contributed papers)

1 Qualification

Speakers of contributed presentation (oral and poster presentations) should be JSAP Regular Members, Student Members and JSAP's Partner Societies* Members.

*JSAP's partner societies: American Physical Society (APS), CSOE(Chinese Society for Optical Engineering), 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 in mid May.

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

Submission Deadline: June 28 (Tue.), 2016 (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.
- 7) The maximum size of PDF files should be 700 KB.

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 (held only in JSAP Autumn Meeting) 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
 - i) include contents that is not relevant to the field of applied physics (in a broad sense)
 - ii) do not comply with this abstract submission guidelines
 - iii) include contents that may damage our trust and dignity

5. 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 2013. 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.

6. 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.