

The 79th

JSAP

Autumn Meeting  
2018

Date September 18(Tue.) - 21(Fri.)

Venu Nagoya Congress Center

## Call for Papers

### 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 26 (Tue.), 2018  
(17:00, JST)**

No late submission is accepted after the deadline.

**Online submission will open on  
May 21.**

#### Register

Registration Deadline:

**August 27 (Mon.), 2018**

Advanced

JSAP Official Member / Partner  
Society Member: 12,000 JPY

JSAP Senior Member: 4,000 JPY

Student: 3,000 JPY

Non-member: 23,000 JPY

Onsite

JSAP Official Member / Partner  
Society Member: 18,000 JPY

JSAP Senior Member: 7,000 JPY

Student : 5,000 JPY

Non-member: 30,000 JPY

**Online pre-registration open on  
May 21.**

#### Submission Deadline

**June 26 (Tue.), 2018 (5:00pm, JST)**

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

# 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 and informed you in early February. 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, 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 2018 <i>*All-English sessions</i>	4.1	Plasmonics and Nanophotonics
	4.2	Photonics Devices, Photonic Integrated Circuit and Silicon Photonics
	4.3	Ultrafast Optics and Photonics
	4.4	Information Photonics
	4.5	Nanocarbon and 2D Materials
	4.6	Terahertz Photonics
	4.7	Laser Material Processing and Manipulation
	4.8	Quantum Optics and Nonlinear Optics
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	Ion beams
	7.6	Atomic/molecular beams and beam-related new technologies
8 Plasma Electronics <i>*All-English session is scheduled in the section 8.8</i>	8.1	Plasma production and diagnostics
	8.2	Plasma deposition of thin film, plasma etching and surface treatment
	8.3	Plasma nanotechnology
	8.4	Plasma life sciences
	8.5	Plasma phenomena, emerging area of plasmas and their new applications
	8.6	Plasma Electronics English Session

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

Category	Section	
9 Applied Materials Science	9.1	Dielectrics, ferroelectrics
	9.2	Nanowires and Nanoparticles
	9.3	Nanoelectronics
	9.4	Thermoelectric conversion
	9.5	New functional materials and new phenomena
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 (including fabrication and characterization methodologies)
	10.2	Fundamental and exploratory device technologies for spin
	10.3	Spin devices, magnetic memories and storages
	10.4	Semiconductor spintronics, superconductor, multiferroics
	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 process, 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 /Si based thin film /Interconnect technology/ MEMS/ Integration technology
	13.5	Semiconductor devices and related technologies
	13.6	Nanostructures, quantum phenomena, and nano quantum devices
	13.7	Compound and power electron devices and process technology
	13.8	Optical properties and light-emitting devices
	13.9	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, 13.6 Nanostructures, quantum phenomena, and nano quantum devices, and 17 Nanocarbon Technology.

**Table 3. Symposium**

S1	The manpower training of Science and Technology, education activities and its revitalization - Tokai area -
S2	Advances and future prospects of accelerator mass spectrometry
S3	Future research and human resources development using research reactors
S4	Ubiquitous Power Lasers
S5	Frontier of Photonic Artificial Intelligence
S6	Quantum computer and Quantum simulator II
S7	Innovation and development of new business created by Photonics
S8	Solid state ionics devices for super smart society. - From fundamentals to applications in ICT, AI and energy devices -
S9	The role of functional oxides in high-frequency devices for IoT
S10	Recent Progresses and Developments of Si Integrated Circuit Technologies with 3D Integrations
S11	Frontier of Cryo-Electron Microscopy
S12	Plasma Informatics - Development of Plasma Science by Taking Advantage of Big Data and Analytics
S13	Recent progress of spintronic materials -2 dimensional systems-
S14	Technological innovation in nanobiology and nanomedicine: from materials, devices to measurement
S15	Frontier of organic semiconductor crystals: Toward the Molecular Science of Quantum Liberated Electrons
S16	Recent Progress of Organic Electronics in Japan and Korea II : from viewpoints of basic science and application
S17	Applied physics of metal halide perovskite materials
S18	Current status and future prospect of chalcogenide-based thin film solar cells technology
S19	Create a path of future semiconductor devices by new materials and processes
S20	Advanced ion microscopy for future nanoelectronics materials and devices
S21	JSAP-KPS Joint Symposium: Wide Bandgap Semiconductor Devices
S22	Renaissance and Novel Development of Poly Si TFT Technology
S23	Trends of ferroelectric HfO <sub>2</sub> technologies
S24	Current status and future prospect of atomic layer processes
S25	New Process Technology of Nitride Semiconductors
S26	The forefront of silica glass
S27	Trend of van der Waals heterostructured devices

## 1 Qualification

Speakers of contributed presentation (oral and poster presentations) should be JSAP Official 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).

## 2. 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) 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.
- 3) 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.
- 4) The maximum number of submission per person is 3.
- 5) 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

## 3. 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, 2019) 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.

## 4. 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.