



Joint Conference: 30th ISTS, 34th IEPC & 6th NSAT

ISTS : International Symposium on Space Technology and Science

IEPC : International Electric Propulsion Conference

NSAT : Nano-Satellite Symposium

Conference Prospectus and Budget and Fiscal Plan

Date : 4 - 10, July (Sat – Fri), 2015

Conference Venue : Kobe International Conference Center

Homepage : <http://www.ists.or.jp>



Organizing Committee for
the 30th International Symposium on Space Technology and Science



The Japan Society for Aeronautical and Space Sciences

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1. Name

Japanese 第30回宇宙技術および科学の国際シンポジウム（略称：第30回 ISTS）
English 30th International Symposium on Space Technology and Science, Kobe-Hyogo, 2015
(abbr. 30th ISTS—Kobe-Hyogo, 2015)

2. Organizer

Organizing Committee for the 30th ISTS—Kobe-Hyogo, 2015
The Japan Society for Aeronautical and Space Sciences

3. Co-organizer

Electric Rocket Propulsion Society (ERPS) / Nano-Satellite Symposium Organizing Committee

4. Collaborator

Kobe-city, Hyogo prefecture / Executive Committee for the 30th ISTS—Kobe-Hyogo, 2015

5. Supporters

Ministry of Education, Culture, Sports, Science and Technology; Office of National Space Policy, Cabinet Office; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism; Ministry of Internal Affairs and Communications; Japan Aerospace Exploration Agency; National Institute of Information and Communications Technology; Space Activities Promotion Committee, Japan Business Federation (Nippon Keidanren); Japan National Tourism Organization

6. Sponsors

Japanese Rocket Society; The Society of Japanese Aerospace Companies; The Institute of Electronics, Information and Communication Engineers; The Japan Society of mechanical Engineers; The Society of Instrument and Control Engineers; The Japan Society of Microgravity Application; Japan Society of Aerospace and Environmental Medicine; The Society of Eco-Engineering; Japanese Society for Biological Sciences in Space; The Robotics Society of Japan; Society for Promotion of Space Science; The American Institute of Aeronautics and Astronautics (AIAA); The Japanese Society for Planetary Sciences; Society of Geomagnetism and Earth, Planetary and Space Sciences

7. International Collaborative Association

Committee on Space Research (COSPAR)

8. Date

July 4th (Sat) – July 10th (Fri), 2015

9. Venue

Kobe International Conference Center
6-9-1 Minatojima-nakamachi, Chuo-ku, Kobe 650-0046, Japan
TEL: +81-78-302-5200 FAX:+81-78-302-6485 <http://www.kobe-cc.jp>

1 0. Aims

The aim of ISTS is to contribute to (1) developing knowledge and technology in space science and (2) establishing a network among researchers, engineers and others in the fields of Astronautics, Space Science, Space Medicine and Space Law by providing with opportunities to discuss the current issues and research. It is also an international conference organized in Japan in order to foster young researchers, engineers and students by encouraging them to present papers and participate in conferences.

1 1. Background

Since its first symposium in 1959, ISTS has been taken place almost every two years and nowadays has become the largest international conference in space technology and science. The 27th ISTS held in Tsukuba in 2009 celebrated its 50th anniversary. For enabling researchers to attend as many scientific conferences as possible, it has changed the conference year from even year to odd year since 2009 (see Table 1 and 2 and Figure 1).

In addition to its original aims, promoting to the development of knowledge and technology in space science and fostering young researchers and students, ISTS endeavors to promote science education to youth and adults within the general public. For example, it actively organizes one-day schools and space exhibitions. For this reason, there are constant requests to hold a conference from local municipalities. Since the 22nd symposium in Morioka, Iwate prefecture, the venues have been continuously in the regions.

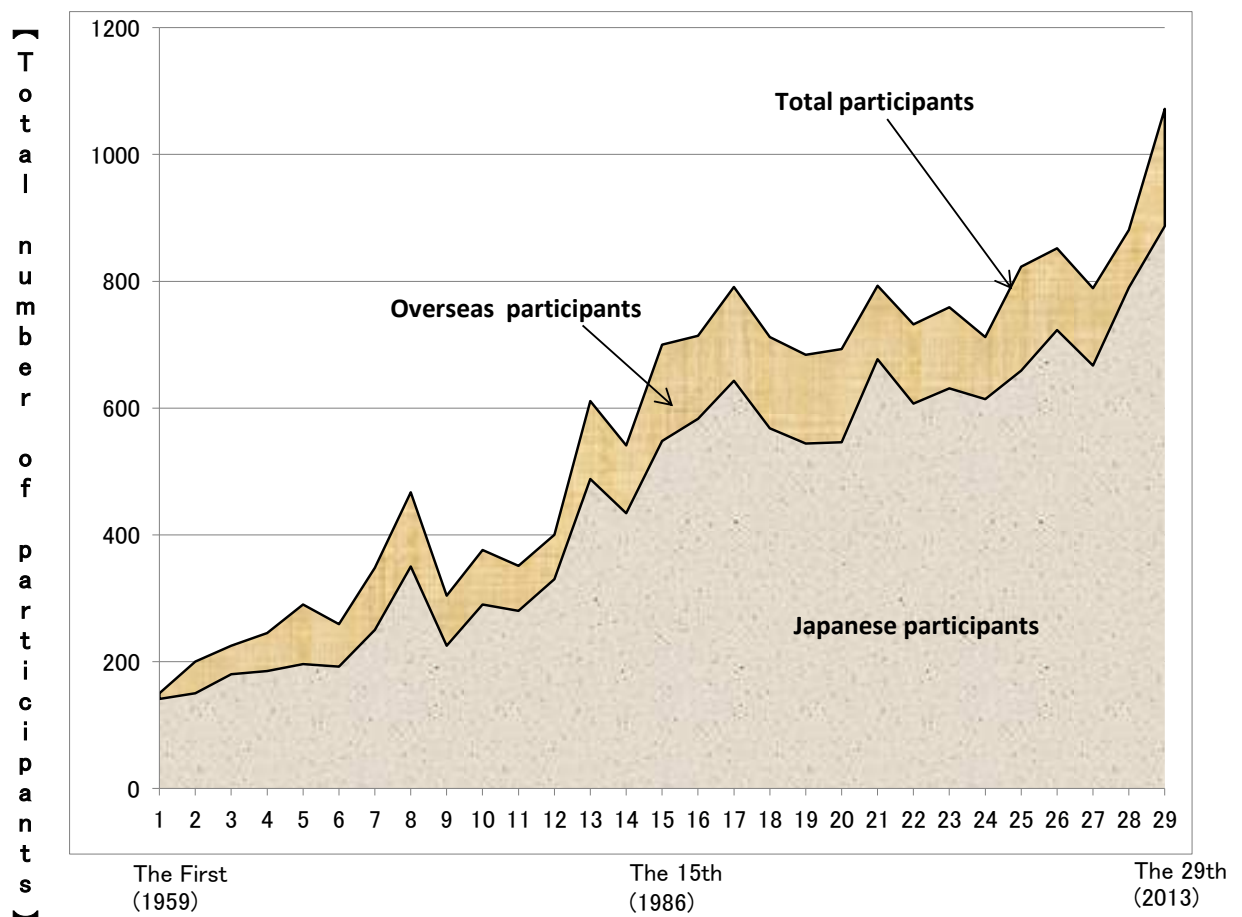
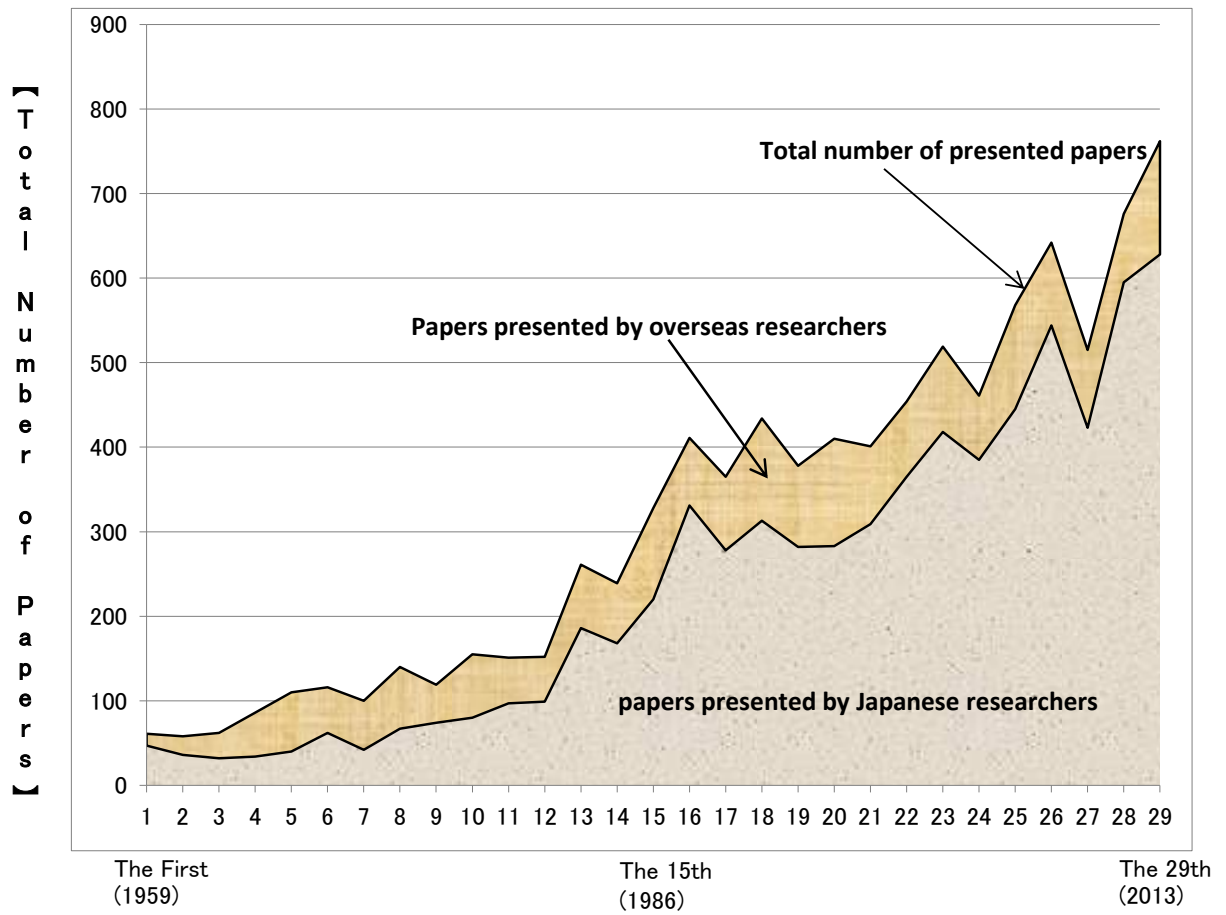
Table 1 Conference Participants and Papers Presented in the 29th ISTS (32 countries represented)

Name of Country	Participants	Papers	Name of Country	Participants	Papers
Germany	17	17	Iran	1	2
Taiwan	24	16	Kazakhstan	2	2
USA	21	15	Singapore	5	3
China	13	12	Spain	3	2
Korea	10	9	Netherland	3	2
UK	7	6	Brazil	17	1
Canada	8	5	Cambodia	1	1
France	10	5	Egypt	1	1
Indonesia	5	5	Poland	1	1
Australia	4	4	Saudi Arabia	1	1
Sweden	3	4	Switzerland	1	1
Italy	3	3	Vietnam	4	1
Malaysia	3	3	Mongolia	1	0
Russia	6	4	Philippines	1	0
Sri Lanka	3	3	International Total	185	134
Thailand	3	3	Japan	887	628
India	3	2	TOTAL	1,072	762

Table 2: Papers Presented and Conference Participants (from the 1st to 29th conferences)

	Date	Papers presented		Participants		Number of Countries Represented	Conference Venue
		Domestic	Overseas	Domestic	Overseas		
1	1959	61		150		4	Gakushi Kaikan, Tokyo
	5/25~5/28	47	14	141	9		
2	1960	58		200		6	Gakushi Kaikan, Tokyo
	5/24~28	36	22	150	50		
3	1961	62		225		12	Japan Center for Cities, Tokyo
	8/28~9/1	32	30	180	45		
4	1962	86		245		8	Japan Center for Cities, Tokyo
	8/27~31	34	52	185	60		
5	1963	110		290		12	Japan Center for Cities, Tokyo
	9/2~7	40	70	196	94		
6	1965	116		259		8	Japan Center for Cities, Tokyo
	11/29~12/4	62	54	192	67		
7	1967	100		346		11	Japan Center for Cities, Tokyo
	5/15~20	42	58	250	98		
8	1969	140		467		16	Japan Center for Cities, Tokyo
	8/25~30	67	73	350	117		
9	1971	119		304		11	Japan Center for Cities, Tokyo
	5/17~22	74	45	225	79		
10	1973	155		376		14	Japan Center for Cities, Tokyo
	9/3~8	80	75	290	86		
11	1975	151		351		13	Japan Center for Cities, Tokyo
	6/30~7/5	97	54	280	71		
12	1977	152		400		14	Japan Center for Cities, Tokyo
	5/16~21	99	53	330	70		
13	1982	261		611		14	Japan Center for Cities, Tokyo
	6/27~7/2	186	75	488	123		
14	1984	239		541		18	Japan Center for Cities, Tokyo
	5/27~6/1	168	71	434	107		
15	1986	328		700		18	Japan Center for Cities, Tokyo
	5/18~23	220	108	548	152		
16	1988	411		714		17	Hokkaido University, Sapporo
	5/22~27	331	80	583	131		
17	1990	365		791		19	Grand Prince Hotel Takanawa, Tokyo
	5/20~25	278	87	643	148		
18	1992	434		712		15	Hotel Shiroyama Kagoshima
	5/17~23	313	121	568	144		
19	1994	378		684		18	Yokohama Prince Hotel
	5/15~24	282	96	544	140		
20	1996	410		693		22	Nagaragawa Convention Center, Gifu
	5/19~25	283	127	546	147		
21	1998	401		793		15	Sonic City Hall, Omiya
	5/24~6/1	309	92	677	116		
22	2000	454		732		18	Hotel Metropolitan Morioka
	5/28~6/4	365	89	607	125		
23	2002	519		759		15	Shimane Civic Center
	5/26~6/2	418	101	631	128		
24	2004	461		712		19	World Convention Center Summit, Miyazaki
	5/30~6/6	386	75	614	98		
25	2006	568		823		18	Kanazawa-shi Kanko Kaikan
	6/4~6/11	445	123	659	164		
26	2008	642		852		26	Act City Hamamatsu
	6/1~6/8	544	98	723	129		
27	2009	515		789		25	International Congress Center, Tsukuba
	7/5~7/12	423	92	667	122		
28	2011	676		881		19	Okinawa Convention Center, Ginowan
	6/5~6/12	595	81	790	91		
29	2013	762		1,072		32	Nagoya Congress Center
	6/2~6/9	628	134	887	185		

Figure 1: Transition of the Numbers of Papers and Participants



1 2. Summary of Symposium

Main Theme: “Space Voyage – Frontier for Better Life on Earth ”

(1) Special Programs

Special Programs after the Opening Ceremony (July 6th)

- World Space Highlight 1: "Highlight National Space Activities"
- World Space Highlight 2 : "Easy Access to Space"

Organized Sessions (Tentative Plans)

- World Space Highlight 3: "What can Electric Propulsion do?"
- Space Port
- Next Flagship Launch System
- Future Space Transportation System
- Socio-cultural Approaches for Space Exploration
- Remote Sensing & Geographic Information System
- Launch Vehicle Acoustics

Panel Discussions (Tentative plans)

- Space Technology and Disaster Management (Disaster Mitigation from Space)
- Human Voyage : Exploring Our Body and Outer World
- Space Innovations and Applications

(2) Technical Sessions

a)Chemical Propulsion and Air-breathing Engines:

Solid, Liquid, Hybrid Rockets, Air-breathing Engines, Reusable Rockets, Sounding Rockets

b)Electric and Advanced Propulsion: Joint session with 34th IEPC:

Electric Propulsion, Laser/Microwave Propulsion, Solar-thermal/Sailing Propulsion, Electrodynamics Tether, Nuclear Propulsion, Magnetohydrodynamics, Microthrusters, Thruster Plume and Spacecraft Interactions, Plasma Technologies, Non-propulsive Applications, Powered Flight Mission

c)Materials and Structures:

Structures of Spacecrafts and Space Vehicles, Structural Dynamics and Control, Structural Analysis, Tests and Nondestructive Inspections, Material Characterizations, New Materials, Balloon Technology

d)Astrodynamics, Navigation Guidance and Control:

Attitude Dynamics, Attitude Determination & Control, Attitude & Payload Sensor Calibration, Orbital Dynamics, Orbit Determination & Control, Trajectory Design and Optimization, Mission Design, Spacecraft Navigation, Entry/Landing/Ascent Guidance, Navigation & Control, Orbital Rendezvous & Proximity Operations, Formation Flying & Satellite Constellations, Space Robotics & Rover, Spacecraft Autonomy & Intelligence, Guidance, Navigation & Control Components, Recent Experiences & Lessons Learned

e)Fluid Dynamics and Aerothermodynamics:

High Enthalpy Flow, Atmospheric-entry, Aero-thermodynamics, Aerodynamic Design, Rarefied Gas, Radiation, Thermal Protection System, Plasma, Magneto-gasdynamics, Low Speed Aerodynamics, Low-speed Aerodynamics at Takeoff and Landing, Supersonic and Hypersonic Flow, Gas Dynamics, Wind Tunnel

f)Small Satellite : Joint session with 6th NSAT:

Innovative Small Satellite Mission, Small Satellite Utilization, Small Satellite Design and Development, Advanced Small Satellite Technology, Small Satellite Lessons Learned, Small Satellite Launch

g)Space Transportation:

Reusable Launch Vehicles (RLVs), Expendable Launch Vehicles (ELVs), Reentry Vehicles, Orbital Transfer Vehicles (OTVs), Human Space Transportation, Sub-orbital Space Transportation

h)Microgravity Sciences and Technology:

Microgravity Science, Physical Science, Fluid Physics, Combustion Science, Fundamental Physics, Material Science, Microgravity Experiments, Facilities for Microgravity Experiments, Opportunities for Microgravity Experiments, Operation and Utilization of the ISS, Sounding Rocket and Balloon

i)Thermal Control:

Thermal and Environmental Control, System and Instrument Thermal Design, Thermal Management, Heat Transfer, Thermophysical Property, Thermal Testing and Analysis, Passive and Active Thermal Control, Technologies, Two-phase Technology, Advanced Thermal Control Materials

j)Satellite Communications, Broadcasting and Navigation:

Satellite System Architectures, Networks and Protocols, Experimental Projects and Results, Subsystems, Components and Devices, Propagation, Regulation, Financing and Marketing, Space Navigation Systems, Fixed and Broadcast Satellite Systems, Mobile Satellite Systems

k)Science and Technology for Human and Robotic Space Exploration:

Scientific Objectives, Results, and Instruments for Exploration of the Moon, Planets and Solar System Small Bodies; Mission Analysis, Mission Design and Key Technologies of Human and Robotic Explorations; Commercial and Private Initiatives of Space Explorations; Roadmap and Strategies for National and International Space Exploration Programs; Science and Technology of Sounding Rocket and Balloon Experiments

n)Earth Observation:

Earth Observation, Earth Environment, Remote Sensing, Remote Sensing Sensors, Application of Remote Sensing, Data and Signal Processing, Data Analysis, Ground System, Data Assimilation, Global Change Prediction, Earth System Science, Disaster Monitoring, Geographic Information Systems

p)Space Life Science:

Space Medicine and Physiology, Countermeasures, Metabolism, Neurophysiology, Environmental Medicine, Behavior and Performance, Psychosocial Issue, Mental Health Care, Remote Medical Care and Tele-medicine, Biomedical Technology, Space Radiation(Measurement, Biological effect, Protection), Space Biology, Gravitational, Physiology and Biology, Artificial Gravity, Analogue Environments and Simulations, Public Outreach and Education in Life Science, Space Life Science for Human Exploration

q)Space Power Systems:

Solar Power Satellite, Solar Cells, Power Resources, Power and Heat Management

r)Space Environment and Debris:

Space Environment, Space Debris, Meteoroid, Space Situational Awareness, Debris Observation and Measurement, Debris Population and Evolution Model, Debris Risk Assessment and Management, Orbital Dynamics on Debris, Reentry Safety, Hypervelocity Impact, Protection Design, Debris Mitigation, Debris Removal, Debris Environment Remediation, Space Weather, Space Weather Forecast, Spacecraft Charging, Environment Model, Solar and Geomagnetic Activity, Environment Data Management, International Cooperation on Debris and Space Environment

s)Student Session

t)Systems Engineering and Information Technology:

Systems Engineering – Methodologies, Systems Engineering – System Design, Systems Engineering – Process and Tools, Model Based Systems Engineering, Verification and Validation, IT Application for Systems Engineering, Project Management and Systems Engineering, Risk Management, Software Engineering,

Requirement Engineering, Knowledge Management

u) *Space Education and Outreach for the Benefit of All People:*

Space Education, Public Outreach

v) *Space Law, Policy and International Cooperation:*

International Law, Domestic Laws & Regulations, Space Policy, Commercialization, Property Right, Exploitation of Resources, Environmental Protection, Space Debris, Sustainable Use, International and National Security, Disarmament & Arms Control, International Cooperation (Bilateral, Multilateral, Regional and Global)

w) *Safety and Mission Assurance:*

Safety, Reliability, Quality, Software Product Assurance, EEE & Mechanical Parts, Standardization

- (3) Exhibitions
- (4) Technical Excursion
- (5) Other (social) events

1 3 . Schedule (draft)

2015	AM	PM	Others
4 July (Sat)			International Space Exhibition
5 July (Sun)			International Space Exhibition
6 July (Mon)	Opening Ceremony / Special Programs		Reception International Space Exhibition
7 July (Tue)	Sessions	Sessions	International Space Exhibition Technical Excursion
8 July (Wed)	Sessions	Sessions	International Space Exhibition Poster Sessions
9 July (Thu)	Sessions	Sessions	Technical Excursion
10 July (Fri)	Sessions	Sessions 8 th Spacecraft Control System Design Contest	Commendation & Closing Ceremony

14. Revenue and Expense Plan (1 March 2014 - 29 February 2016)

(JPY before tax)

Recurring Revenue		
Category	Subcategory	Total
Investment income	Interests	(14,000) 14,000
Contribution	Contribution	(11,000,000) 11,000,000
Operating revenue	Conference income	(46,400,000) (46,400,000)
Subsidy	Fiscal subsidy	(9,000,000) 9,000,000
	Local government subsidy	0
Burden charge	Burden charge	(4,000,000) 4,000,000
Miscellaneous	Interests	(0) 0
Recurring revenue total		70,414,000

Recurring Expense		
Category	Subcategory	Total
Operating expenses		(70,414,000)
	Salaries	12,100,000
	Temporary employment wages	1,650,000
	Severance packages	360,000
	Legal welfare	1,960,000
	Welfare	50,000
	Meeting expenses	1,120,000
	Travel	800,000
	Communication and transportation costs	650,000
	Office supplies	200,000
	Homepages	500,000
	Printing and bookbinding	350,000
	Rent for venue, office and meeting room	18,610,000
	Utility	240,000
	Social expenses	2,800,000
	Insurance	200,000
	Service charge	1,220,000
Award	140,000	
Grant	1,300,000	
Outsourcing expense	26,044,000	
Miscellaneous	120,000	
Recurring expense total		70,414,000
Profit/Loss		0

1 5. Committee and Membership

Masanori Honma, the General Chairperson of the 29th ISTS, recommended Kozo Fujii, Professor at the Institute of Space and Astronautical Science in the Japan Aerospace Exploration Agency, as the 30th ISTS General Chair. This was approved by the governing board of the Japan Society for Aeronautical and Space Sciences. Dr. Fujii appointed the organizing committee and chairpersons as follows and held its first conference on 18 Oct 2013 as the starting of the preparation.

30th ISTS Organizing Committee Members

【Consultant】	【General Chairperson】 <u>Kozo FUJII</u>	【Advisor】
【Honorary Advisor】		【Auditor】
【Deputy General Chairperson】		【Secretariat】
	【Executive Committee】	【Director of JSASS Board】 <u>Ikkoh FUNAKI</u>
	【Program Committee (domestic/international)】 <u>Shinichi NAKASUKA</u>	
	└─ 【Program subcommittee】	
	【Finance Committee】	<u>Soichiro ASADA</u>
	【Conference Venue and Registration Committee】	<u>Stoshi NONAKA</u>
	【Public Relations and Outreach Committee】	<u>Eijiro HIROHAMA</u>
	【Exhibition Committee】	<u>Shigeki KAMIGAICHI</u>
	【Publications Committee】	<u>Ikkoh FUNAKI</u>
	【Venue Relations Committee】	<u>Nobuyuki KAYA</u>
	【General Affairs Committee】	<u>Kazuo TACHI</u>

30th ISTS Secretariat

Address: 1-18-2 Shinbashi, Minato-ku, Tokyo 105-0004 Japan

TEL: (81)-3-3519-4808 FAX : (81)-3-3519-9998

E-mail: inquiry@ists.or.jp

Head: Miwako SHIMIZU

30th ISTS Organizing Committee Members' List

General Chairperson	Kozo FUJII	JAXA
Consultant	Jiro KONDO	10th General Chairperson
	Shigefumi SAITO	11th General Chairperson
	Shigeo KOBAYASHI	16th General Chairperson
	Tomonao HAYASHI	18th General Chairperson
	Ryojiro AKIBA	19th General Chairperson
	Tomifumi GODAI	20th General Chairperson
	Shigeaki NOMURA	21st General Chairperson
	Hiroki MATSUO	22nd General Chairperson
	Hirotooshi KUBOTA	23rd General Chairperson
	Susumu TODA	24th General Chairperson
	Yasunori MATOGAWA	25th General Chairperson
	Michikata KONO	26th General Chairperson
	Junjiro ONODA	27th General Chairperson
	Yoshihiro ARAKAWA	28th General Chairperson
	Masanori HOMMA	29th General Chairperson
Honorary Advisor	Toshizo IDO	Governor of Hyogo Prefecture
	Tokizo HISAMOTO	Mayor of Kobe City
Advisor	Naoki OKUMURA	JAXA
	Atsushi TAKAHARA	NTT
	Yasuyuki NAKAJIMA	KDDI
	Toru KURODA	NHK STRL
Deputy General Chairperson	Takashi ISHIKAWA	Nagoya University
	Yoshifumi INATANI	JAXA
	Kiyoshi HIGUCHI	JAXA
	Yasuhiro MORITA	JAXA
Auditor	Akira SHISA	IHI
	Toshikazu SHIRASU	Fujitsu

Program Committee

Chairperson of the Committee	Shinichi NAKASUKA	The University of Tokyo
Co-Chairperson	Takanao SAIKI	JAXA
Co-Chairperson	Toru SHIMADA	JAXA
Co-Chairperson	Ryu FUNASE	The University of Tokyo
	Yuko INATOMI	JAXA
	Hiraku SAKAMOTO	Tokyo Institute of Technology
	Shoji YOSHIKAWA	MELCO
	Yoshinori YOSHIMURA	JAXA

Finance Committee

Chairperson of the Committee	Shoichiro ASADA	MHI
Co-Chairperson	Hidemasa NAKANISHI	MHI
	Takahiro KIGUCHI	Fujitsu
	Masahiro KURITA	NEC
	Koji TAKAO	IHI
	Shusaku TANAKA	MELCO
	Mihoko FUKUNAGA	IHI Aerospace
	Ryosuke FUTAMATA	JAXA
	Arisa WADA	MHI

Conference Venue and Registration Committee

Chairperson of the Committee	Satoshi NONAKA	JAXA
Co-Chairperson	Toshiyuki SUZUKI	JAXA
	Nozomu KOGISO	Osaka Prefecture University
	Ichiro SATO	Kobe City
	Taeko SEKI	JAXA
	Masaki TAKEMURA	Hyogo Prefecture
	Hiroyuki NISHIDA	Tokyo Univ. of Agriculture and Technology
	Shingo MATSUYAMA	JAXA
	Kazuhiko YAMADA	JAXA
	Takayuki YAMAMOTO	JAXA

Public Relations and Outreach Committee

Chairperson of the Committee	Eijiro HIROHAMA	JAXA
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Co-Chairperson	Kaori SASAKI	JAXA
	Takao AKUTSU	JAXA
	Tomomi KAWASAKI	JAXA
	Ichiro SATO	Kobe City
	Masaki TAKEMURA	Hyogo Prefecture

Exhibition Committee

Chairperson of the Committee	Shigeki KAMIGAICHI	JAXA
Co-Chairperson	Eijiro NAMURA	JAXA
	Ichiro SATO	Kobe City
	Rie SEKI	JAXA
	Naoko HIRAYAMA	JAXA
	Yoshinori TAKAO	Yokohama National University
	Masaki TAKEMURA	Hyogo Prefecture

Publications Committee

Chairperson of the Committee	Ikko FUNAKI	JAXA
Co-Chairperson	Hirota OHTSU	Ryukoku University
	Takehiko ISHIKAWA	JAXA
	Taro SHIMIZU	JAXA
	Katsuhiko YAMADA	Osaka University
	Naoji YAMAMOTO	Kyushu University

Venue Relations Committee

Chairperson of the Committee	Nobuyuki KAYA	Kobe University
	Ichiro SATO	Kobe City
	Masaki TAKEMURA	Hyogo Prefecture

General Affairs Committee

Chairperson of the Committee	Kazuo TACHI	JAXA
Co-Chairperson	Takashi MUGITANI	JAXA
	Yasuhiko OZEKI	JAXA

30th ISTS Program Subcommittee Members' List

a) Session (Chemical Propulsion and Air-breathing Engines)

Chairperson of the Committee	Shinji NAKAYA	The University of Tokyo
Co-Chairperson	Osamu IMAMURA	Nihon University
	Hidefumi KATAOKA	Osaka Prefecture University
	Tatsuya KOMARU	MHI
	Hideyuki TAGUCHI	JAXA
	Tetsuo HIRAIWA	JAXA
	Takayuki YAMAGUCHI	JAXA
	Kengo YAMAMOTO	IHI Aerospace
	Yoon YOUNGBIN	Seoul National University

b) Session (Electric and Advanced Propulsion) Joint Session with 34th IEPC

Chairperson of the Committee	Kimiya KOMURASAKI	The University of Tokyo
Co-Chairperson	Yoshinori NAKAYAMA	National Defense Academy
	Akira KAKAMI	University of Miyazaki
	Hiroyuki SHIRAIISHI	Daido University
	Naoki NAGAO	JAXA
	Satoshi HOSODA	JAXA
	Shigeru YOKOTA	University of Tsukuba
	Bin WANG	Nagoya University
	Georg HERDRICH	University of Stuttgart
	Tony SCHÖNHERR	The University of Tokyo
	YANG Juan	Northwestern Polytechnic Univ.
	Wonho CHOI	KAIST

c) Session (Materials and Structures)

Chairperson of the Committee	Naoko KISHIMOTO	Setsunan University
Co-Chairperson	Takashi IWASA	Tottori University
	Takeshi AKITA	Chiba Institute of Technology
	Hiraku SAKAMOTO	Tokyo Institute of Technology
	Takayuki SHIMODA	JAXA
	Atsuhiko SENBA	Nagoya University
	Hiroaki TANAKA	National Defense Academy
	Tomohiro YOKOZEKI	The University of Tokyo

d) Session (Astrodynamics, Navigation, Guidance and Control)

Chairperson of the Committee	Shinji HOKAMOTO	Kyushu University
Co-Chairperson	Hirohisa KOJIMA	Tokyo Metropolitan University
	Takanori IWATA	JAXA
	Yasuhiro KAWAKATSU	JAXA
	Takeya SHIMA	MELCO
	Fuyuto TERUI	JAXA
	Katsuhiko YAMADA	Osaka University
	Kazuya YOSHIDA	Tohoku University
	Hyochoong BANG	KAIST
	Pavel TRIVAILO	Royal Melbourne Institute of Technology

e) Session (Fluid Dynamics and Aero-themodynamics)

Chairperson of the Committee	Masato FUNATSU	Gunma University
Co-Chairperson	Kazuhisa FUJITA	JAXA
	Hiroataka OHTSU	Ryukoku University
	Hiromitsu KAWAZOE	Tottori University
	Kazutaka KITAGAWA	Aichi Institute of Technology
	Takeharu SAKAI	Nagoya University
	Yoshitaka SAKAMURA	Toyama Prefectural University
	Kojiro SUZUKI	The University of Tokyo
	Toshiyuki SUZUKI	JAXA
	Koju HIRAKI	Kyushu Institute of Technology
	Takayasu FUJINO	University of Tsukuba

f) Session (Small Satellite) Joint Session with 6th NSAT

Chairperson of the Committee	Shinichi KIMURA	Tokyo University of Science
	Yuji SAKAMOTO	Tohoku University
	Hironori SAHARA	Tokyo Metropolitan University
	Hiroyasu TAJIMA	Nagoya University
	Mengu CHO	Kyushu Institute of Technology
	Tsuyoshi TOTANI	Hokkaido University
	Seisuke FUKUDA	JAXA
	Yasuyuki MIYAZAKI	Nihon University
	Ryoichiro YASUMITSU	MELCO

g) Session (Space Transportation)

Chairperson of the Committee	Kenji FUJII	JAXA
Co-Chairperson	Wataru SARAЕ	JAXA
	Koki KITAGAWA	JAXA
	Tetsuhiko KOZASA	MHI
	Takeshi TSUJIMOTO	JAXA
	Takaaki MATSUMOTO	Kyushu Institute of Technology
	Kazuhide MIZOBARA	Muroran Institute of Technology
	Atsushi MURAKAMI	IHI Aerospace

h) Session (Microgravity Science and Technology)

Chairperson of the Committee	Satoshi ADACHI	JAXA
Co-Chairperson	Takehiko ISHIKAWA	JAXA
	Masao KIKUCHI	JAXA
	Shigeru DEGUCHI	JAMSTEC
	Hiroshi NOMURA	Nihon University
	Yasuhiro HAYAKAWA	Shizuoka University
	Satoshi MATSUMOTO	JAXA
	Izumi YOSHIZAKI	JAXA
	Hubertus THOMAS	Max-Planck Institute for Extraterrestrial Physics
	Butchi TATA	Homi Bhabha National Institute

i) Session (Thermal Control)

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