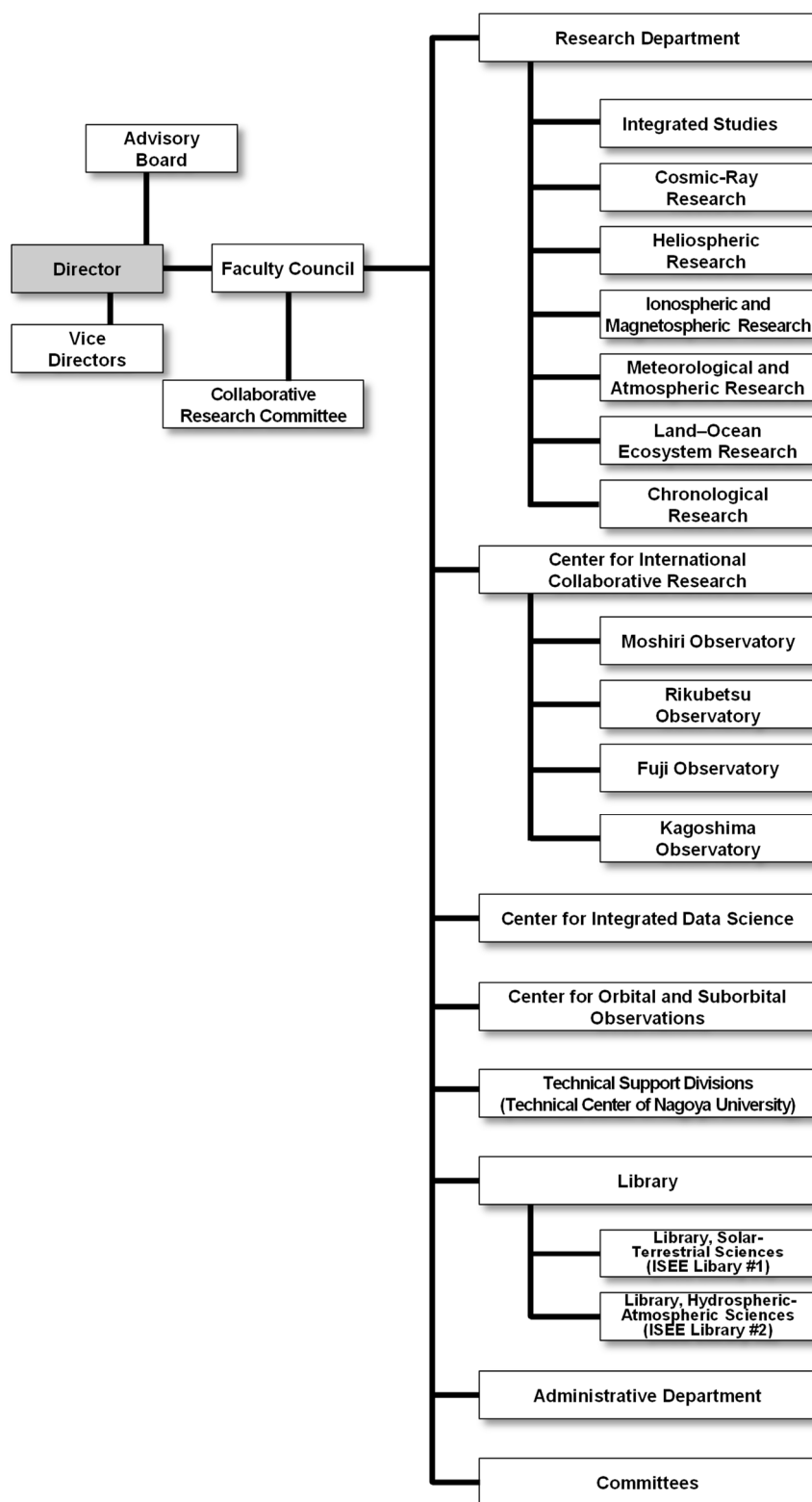


1. History

Solar-Terrestrial Environment Laboratory	Hydrospheric Atmospheric Research Center (HyARC)	The Nagoya University Center for Chronological Research
<p>May, 1949 Research Institute of Atmospherics, Nagoya University was established.</p> <p>April, 1958 Cosmic-ray Research Laboratory, Faculty of Science, Nagoya University was established.</p> <p>June, 1990 The Solar-Terrestrial Environment Laboratory (STEL) was established.</p> <p>April, 1995 The Center for Joint Observations and Data Processing was organized.</p> <p>April, 2003 The Rikubetsu Observatory was organized.</p> <p>April, 2004 The Geospace Research Center was established.</p> <p>March, 2006 Laboratory was relocated to the Higashiyama Campus.</p> <p>April, 2010 Approved as one of the Joint Usage/Research Centers.</p>	<p>April, 1957 The Water Research Laboratory, Faculty of Science, Nagoya University was established.</p> <p>September, 1973 The Water Research Institute (WRI), Nagoya University was organized.</p> <p>April, 1993 The Institute for Hydrospheric-Atmospheric Sciences (IHAS), Nagoya University was organized.</p> <p>April, 2001 The Hydrospheric Atmospheric Research Center (HyARC), Nagoya University was established.</p> <p>April, 2010 Approved as one of the Joint Usage/Research Centers.</p>	<p>February, 1981 The Tandetron Accelerator Laboratory was established in the Radioisotope Research Center of Nagoya University.</p> <p>March, 1982 Installation of the Tandetron Accelerator Mass Spectrometry (AMS) machine No.1 was completed.</p> <p>January, 1987 Inter-University Service of ¹⁴C measurements was started with the Tandetron AMS machine No.1.</p> <p>June, 1990 The Nagoya University Dating and Material Research Center was established.</p> <p>March, 1997 The Tandetron AMS machine No. 2 was newly introduced.</p> <p>April, 2000 The Nagoya University Center for Chronological Research was organized. The CHIME dating system was transferred from the School of Science.</p>
<p>October, 2015, Institute for Space–Earth Environmental Research (ISEE), merging the laboratory and two centers, was established.</p>		
<p>January, 2016 ISEE was approved as one of the Joint Usage/Research Centers.</p>		

2. Organization



3. Staff

Director	Kanya Kusano
Vice Director	Joji Ishizaka
Vice Director	Kazuo Shiokawa

April 1, 2019–March 31, 2020

*: Concurrent post

▲: Left the Institute in the 2019 academic year

○: Joined the Institute in the 2019 academic year

※: Belongs to Institute for Advanced Research Section

Division for Integrated Studies

Professor	Kanya Kusano
Professor	Yoshizumi Miyoshi (*)
Associate Professor	Satoshi Masuda
Associate Professor	Takayuki Umeda (*)
Lecturer	Shinsuke Imada
Assistant Professor	Akimasa Ieda
Designated Assistant Professor	Yumi Bamba ○※

Division for Cosmic-Ray Research

Professor	Yoshitaka Itow
Professor	Hiroyasu Tajima (*)
Associate Professor	Yutaka Matsubara
Associate Professor	Fusa Miyake
Associate Professor	Fumio Abe (*)▲
Lecturer	Akira Okumura
Assistant Professor	Hiroaki Menjo
Designated Assistant Professor	Shingo Kazama ※
Designated Assistant Professor	Kazufumi Sato ○
Technical Assistant	Kazuhiro Huruta
Technical Assistant	Kinji Morikawa

Division for Heliospheric Research

Professor	Munetoshi Tokumaru
Associate Professor	Kazumasa Iwai
Assistant Professor	Ken-ichi Fujiki

Division for Ionospheric and Magnetospheric Research

Professor	Masafumi Hirahara
Professor	Kazuo Shiokawa (*)
Associate Professor	Yuichi Otsuka
Associate Professor	Satonori Nozawa
Associate Professor	Masahito Nosé
Associate Professor	Nozomu Nishitani (*)
Lecturer	Shin-ichiro Oyama
Designated Assistant Professor	Atsuki Shinbori
Researcher	Priyanka Ghosh ○▲
Researcher	Sivakandan Mani ○
JSPS Research Fellowship	Shun Imajo ▲ To CIDAS

Division for Meteorological and Atmospheric Research

Professor	Akira Mizuno
Professor	Michihiro Mochida
Professor	Nobuhiro Takahashi (*)
Professor	Kazuhisa Tsuboki (*)
Associate Professor	Tomoo Nagahama
Associate Professor	Hirohiko Masunaga
Associate Professor	Taro Shinoda (*)
Assistant Professor	Sho Ohata ※
Assistant Professor	Taku Nakajima
Researcher	Daichi Tsutsumi ○
Researcher	Yange Deng ▲
Researcher	Fumie Furuzawa
Research Institution Researcher	Minrui Wang ▲

Division for Land–Ocean Ecosystem Research

Professor	Joji Ishizaka
Professor	Tetsuya Hiyama (✳)
Associate Professor	Hidenori Aiki
Associate Professor	Naoyuki Kurita
Lecturer	Hatsuki Fujinami
Assistant Professor	Yoshihisa Mino
Researcher	Shun Ohishi ▲ To Visiting Academic Staff
Researcher	Akiko Mizuno
Researcher	Mengmeng Yang ○
Research Institution Researcher	Qingyang Song
JSPS Research Fellowship	Yuki Kanno ▲

Center for International Collaborative Research

Director • Professor	Kazuo Shiokawa
Professor	Tetsuya Hiyama
Professor	Akira Mizuno (✳)
Professor	Masayo Minami (✳)
Designated Professor (Cross Appointment)	K. D. Leka
Designated Professor (Cross Appointment)	Lynn Marie Kistler
Associate Professor	Nozomu Nishitani
Associate Professor	Naoyuki Kurita (✳)
Associate Professor	Satonori Nozawa (✳)
Lecturer	Hatsuki Fujinami (✳)
Assistant Professor	Hiroaki Menjo (✳)
Designated Assistant Professor	Masafumi Shoji
Designated Assistant Professor	Claudia Martinez-Calderon ○✳
Designated Assistant Professor	Sung-Hong Park
Researcher	Hironari Kanamori

Division for Chronological Research

Professor	Hiroyuki Kitagawa
Professor	Masayo Minami
Associate Professor	Takenori Kato (✳)
Assistant Professor	Hiroataka Oda
Designated Assistant Professor	Masako Yamane
Research Institution Researcher	Yukiko Kozaka ○
Designated Technical Staff	Masami Nishida
Designated Technical Staff	Yuriko Hibi
Technical Assistant	Yuki Wakasugi ○

Foreign Visiting Research Fellow

April 24 – July 24, 2019	Stephen Michael Playfer
May 15 – August 15, 2019	Wen-Yih Sun
August 1 – September 30, 2019	Jean-Pierre St-Maurice
September 24 – December 20, 2019	Abraham Chian-Long Chian
January 25 – May 30, 2020	Veenadhari Bhasakarapantula
March 1 – March 31, 2020	Khan-Hyuk Kim

Center for Integrated Data Science

Director • Professor	Kazuhisa Tsuboki
Professor	Yoshizumi Miyoshi
Professor	Joji Ishizaka (✳)
Professor	Kanya Kusano (✳)
Associate Professor	Fumio Abe ▲
Associate Professor	Takayuki Umeda
Associate Professor	Takenori Kato
Associate Professor	Hidenori Aiki (✳)
Associate Professor	Satoshi Masuda (✳)
Associate Professor	Hirohiko Masunaga (✳)
Designated Associate Professor	Tomoaki Hori
Lecturer	Shinsuke Imada (✳)
Assistant Professor	Akimasa Ieda (✳)
Designated Assistant Professor	Haruhisa Iijima
Designated Assistant Professor	Satoshi Inoue ▲
Designated Assistant Professor	Shun Imajo ○ <small>From Div. for Ionospheric and Magnetospheric Res.</small>
Designated Assistant Professor	Sachie Kanada
Designated Assistant Professor	Satoshi Kurita ▲
Designated Assistant Professor	Satoko Nakamura ○
Designated Assistant Professor	Chae-Woo Jun ○
Researcher	YunHee Kang ○
Researcher	Norio Umemura
Researcher	Masaya Kato
Researcher	Takafumi Kaneko
Researcher	Yoshiki Fukutomi
Researcher	Yukie Moroda ▲
Researcher	Sandeep Kumar ○
Designated Technical Staff	Mariko Kayaba
Designated Technical Staff	Asayo Maeda
Technical Assistant	Takako Kondo ▲
Technical Assistant (Research Support Facilitator)	Nanako Hirata

Center for Orbital and Suborbital Observations

Director • Professor	Nobuhiro Takahashi
Professor	Hiroyasu Tajima
Designated Professor	Hidetaka Tanaka
Designated Professor	Masataka Murakami
Professor	Joji Ishizaka (✳)
Professor	Kazuhisa Tsuboki (✳)
Professor	Masafumi Hirahara (✳)
Associate Professor	Taro Shinoda
Associate Professor	Hidenori Aiki (✳)
Designated Associate Professor	Kazutaka Yamaoka
Assistant Professor	Sho Ohata (✳)※
Designated Assistant Professor	Hiroyuki Tomita
Designated Assistant Professor	Mayumi Yoshioka
Researcher	Takeharu Kouketsu ○
Researcher	Yutaka Matsumi
Researcher	Youko Yoshizumi
Research Institution Researcher	Ji Hyun Park ○
Designated Technical Staff	Tomoko Tanaka

Visiting Academic Staff/Visiting Faculty Members

Visiting Professor	Yoshiya Kasahara
Visiting Professor	Tomo'omi Kumagai
Visiting Professor	Yoshikatsu Kuroda
Visiting Professor	Yoko Kokubu ○
Visiting Professor	Hiroyuki Shinagawa
Visiting Professor	Kiyoto Shibasaki ▲
Visiting Professor	Nobuo Sugimoto ○
Visiting Professor	Kanako Seki
Visiting Professor	Hotaek Park
Visiting Professor	Yoshinobu Harazono ▲
Visiting Associate Professor	Christian Leipe ○
Visiting Associate Professor	Yasunobu Ogawa
Visiting Associate Professor	Shinji Saito ○
Visiting Associate Professor	Daikou Shiota
Visiting Associate Professor	Iku Shinohara
Visiting Associate Professor	Toru Tamura ○
Visiting Associate Professor	Yasutaka Narusawa
(Emeritus Professor)	Toshio Nakamura

Shun Ohishi ○ From Div. for Land–Ocean Ecosystem Res.

Technical Center of Nagoya University

Senior Technician	Akiko Ikeda
Senior Technician	Yasusuke Kojima
Senior Technician	Haruya Minda
Technician	Tetsuya Kawabata
Technician	Tomonori Segawa
Technician	Yoshiyuki Hamaguchi
Technician	Ryuji Fujimori
Technician	Yasushi Maruyama
Technician	Takayuki Yamasaki
Technician	Yuka Yamamoto
Assistant Technician	Takumi Adachi
Assistant Technician	Moeto Kyushima

Cooperating Research Fellow

Xiuchun Qin
Tzu-Fang Chang
Keisuke Tamura ○

Foreign Visiting Cooperation Researcher

May 7 – July 10, 2019	Wen-Chien Lee
Jun 5, 2019 – May 29, 2020	Sneha Yadav
Jun 16 – July 18, 2019	Rangaiah Kariyappa
August 1, 2019 – July 31, 2020	Yuan Xia
September 16 – August 31, 2020	Hyangpyo Kim
September 20 – November 4, 2019	Artem Yu. Gololobov
September 23 – December 13, 2019	Gilda de Lourdes González
October 1 – December 20, 2019	Ram Singh
October 1 – December 31, 2019	Edith Liliana Macotela Cruz
October 1, 2019 – March 31, 2020	Hiroatsu Sato
October 21 – November 21, 2019	Samuel Krucker
December 10, 2019 – January 15, 2020	Viswanathan Lakshmi Narayanan
December 23, 2019 – February 7, 2020	Sudarsanam Tulasiram

Administration Department

Director, Administration Department	Takashi Murate ○
General Affairs Division	
Manager, General Affairs Division	Mitsuyuki Hirokawa ○
Senior Specialist, Research Support Office	Toshiyuki Yokoi ▲
Specialist, General Affairs Section	Keisuke Yokoe ▲
Specialist, General Affairs Section	Hideaki Yano ○
Section Head, General Affairs Section	Kazuhiro Yokoyama
Section Head, General Affairs Section	Seiji Tsuruta ▲
Section Head, General Affairs Section	Shoji Asano
Section Head, Personnel Affairs Section	Munetika Mizuno
Section Head, Research Support Office	Tadayosi Ito ▲
Section Head, Research Support Office	Naoko Hiramatsu ○ ▲
Section Head, Budget Planning Section	Mirei Miyao ○
Leader, General Affairs Section	Yoko Nokura ▲
Administrator	Yuka Ito
Administrator	Anna Kato ▲
Administrator	Asana Goto ○
Administrator	Yuka Suzuki ▲
Administrator	Hisako Watabe ○
Accounting Division Manager, Accounting Division	Hiroyuki Ichioka ▲
Specialist, Maintenance Section	Yoshiyuki Nakano ▲
Section Head, Accounting Section	Masashi Shimamura ▲
Section Head, Supplies Section	Kiyoko Hasegawa ▲
Section Head, Supplies Section	Koji Hattori ○ ▲
Section Head, Maintenance Section	Shinichi Nakagawa ▲
Leader, Accounting Section	Youko Yasui ▲
Leader, Supplies Section	Yuka Matsuoka ▲
Leader, Supplies Section	Tomoyuki Furuhashi ○ ▲
Designated Supervisor	Tadashi Tsuboi

Toyokawa Branch

Designated Technical Staff	Kayoko Asano
Technical Assistant (Research Support Facilitator)	Yasuo Kato

4. Committee of Other Organizations

Committee of Other Organizations

Contact Post	Job Title	Organizations	Name of Committee / Title
Joji Ishizaka	Professor	North Pacific Marine Science Organization (PICES)	Co-Chair of Advisory Panel for a CREAMS/PICES Program in East Asian Marginal Seas
Joji Ishizaka	Professor	North Pacific Marine Science Organization (PICES)	Member of Working Group 35: Third North Pacific Ecosystem Report
Joji Ishizaka	Professor	Northwest Pacific Action Plan (NOWPAP)	Focal Point of Center for Special Monitoring and Coastal Environmental Assessment Regional Active Center (CEARAC)
Yoshitaka Itow	Professor	International Union of Pure and Applied Physics	Commission C4 member
Yoshitaka Itow	Professor	Institute of Particle and Nuclear Studies, KEK	J-Parc Program Advisory Committee member
Yoshitaka Itow	Professor	International Symposium for Very High Energy Cosmic Ray Interactions	International Advisory Committee member
Yoshitaka Itow	Professor	Ultra High Energy Cosmic Ray Conference	International Advisory Committee member
Kanya Kusano	Professor	Earth, Planets and Space (EPS)	Lead Guest Editor
Kazuo Shiokawa	Professor	Committee on Space Research (COSPAR)	Chair of the COSPAR Sub-Commission C1 (The Earth's Upper Atmosphere and Ionosphere)
Kazuo Shiokawa	Professor	Scientific Committee on Solar-Terrestrial Physics (SCOSTEP)	President
Kazuo Shiokawa	Professor	Journal of Atmospheric and Solar-Terrestrial Physics	Chief Guest Editor
Hiroyasu Tajima	Professor	B-factory Programme Advisory Committee	Committee member
Hiroyasu Tajima	Professor	Progress of Theoretical and Experimental Physics	Editor
Hiroyasu Tajima	Professor	The Scientific World Journal	Editorial Board member
Hiroyasu Tajima	Professor	IEEE Nuclear Science Symposium Program Committee	Member for IEEE Nuclear Science Symposium Program Committee
Hiroyasu Tajima	Professor	Multidisciplinary Digital Publishing Institute (MDPI)	Guest Editor
Hiroyasu Tajima	Professor	SiPM workshop Scientific Organizing Committee	Member for SiPM workshop Scientific Organizing Committee
Tetsuya Hiyama	Professor	Integrated Land Ecosystem - Atmosphere Processes Study (iLEAPS), a global research project of the Future Earth	Scientific Steering Committee (SSC) member

Contact Post	Job Title	Organizations	Name of Committee / Title
Tetsuya Hiyama	Professor	International Arctic Science Committee (IASC)	Terrestrial Working Group (TWG) member
Yoshizumi Miyoshi	Professor	Annales Geophysicae	Editor
Yoshizumi Miyoshi	Professor	Earth and Planetary Physics	Editor
Yoshizumi Miyoshi	Professor	Earth, Planets and Space (EPS)	Guest Editor
Yoshizumi Miyoshi	Professor	Scientific Committee on Solar-Terrestrial Physics (SCOSTEP)	Bureau member
Yoshizumi Miyoshi	Professor	National Science Foundation/Geospace Environment Modeling (NSF/GEM)	Steering Committee member
Yoshizumi Miyoshi	Professor	EU-Horizon 2020: SafeSpace	Advisory Panel
Yoshizumi Miyoshi	Professor	Polar Research	Guest Editor
Michihiro Mochida	Professor	Atmospheric Research	Associate Editor
Michihiro Mochida	Professor	Atmospheric Environment	Member of Editorial Advisory Board
Michihiro Mochida	Professor	International Commission on Atmospheric Chemistry and Global Pollution (iCACGP)	Commission member
Yuichi Otsuka	Associate Professor	Journal of Astronomy and Space Sciences	Editor
Nozomu Nishitani	Associate Professor	Earth, Planets and Space (EPS)	Vice Editors-in-Chief /Guest Editor
Nozomu Nishitani	Associate Professor	Polar Science	Guest Editor
Nozomu Nishitani	Associate Professor	Super Dual Auroral Radar Network (SuperDARN)	Vice chair of Executive Council
Nozomu Nishitani	Associate Professor	SuperDARN 2019 Workshop Organizing Committee	Scientific Organizing Committee (SOC) chair
Satonori Nozawa	Associate Professor	EISCAT Scientific Association	Council member
Satonori Nozawa	Associate Professor	Earth, Planets and Space (EPS)	Guest Editor
Masahito Nosé	Associate Professor	Earth, Planets and Space (EPS)	Editor /Guest Editor

4. Committee of Other Organizations

Contact Post	Job Title	Organizations	Name of Committee / Title
Masahito Nosé	Associate Professor	International Association of Geomagnetism and Aeronomy (IAGA)	Division V Chair
Hirohiko Masunaga	Associate Professor	World Climate Research Programme (WCRP) Global Energy and Water cycle Exchanges (GEWEX)	GEWEX Data and Analysis Panel (GDAP) member
Hirohiko Masunaga	Associate Professor	National Aeronautics and Space Administration (NASA)	ACCP Science Community Cohort
Toshio Nakamura	Visiting Faculty	Radiocarbon	Member of Editorial Board

5. Joint Research Programs

One of the major functions of ISEE is to promote and conduct collaborative research on Space–Earth Environmental Science together with researchers from universities and institutes outside ISEE. On January 14, 2016, ISEE was certified as a core research institution of Space–Earth Environmental Science, a “Joint Usage/Research Center” as defined by the MEXT of Japan. We prepared application forms for joint research programs focusing on the following two research issues: the “Study of coupling processes in the solar–terrestrial system using ground-based observation networks” and the “Establishment of an international collaborative research hub to solve research issues in the global (terrestrial) environment and space applications based on comprehensive studies of the space–Sun–Earth system.” The former focuses on coupling processes in the solar–terrestrial system and the interactions of neutral and plasma components in the Earth’s atmosphere by establishing an international ground-based observation network ranging from low- to high- latitude regions, especially in Asia and Africa. The latter aims to establish an international collaborative research hub for comprehensive studies of the space–Sun–Earth system, space applications, space weather forecasting, and environmental problems such as global warming. The following 10 research programs were prepared for application during the 2019 Japanese fiscal year. The ISEE symposium became an independent category from the ISEE/CICR International Workshop and the announcement for the 2020–2021 ISEE symposium was conducted three months prior to other programs. In addition, the SCOSTEP Visiting Scholar program, which was conducted by the ISEE/CICR, will be incorporated into joint use and joint research from FY2020.

- 01) Joint Research Program (International)
- 02) ISEE International Joint Research Program (*)
- 03) ISEE/CICR International Workshop
- 04) Joint Research Program (General)
- 05) Joint Research Program (Student Encouragement)
- 06) Joint Research Program (Symposium)
- 07) Joint Research Program (Computing Infrastructure)
- 08) Joint Research Program (Database Management)
- 09) Joint Research Program (Accelerator Mass Spectrometry Analysis)
- 10) Carbon 14 Analysis Service

(*) Applicable only to foreign researchers

These collaborative research programs will be executed using the instruments, software/databases, and facilities of ISEE. Joint research programs 01) to 03), described above, will be managed by the Center for International Collaborative Research (CICR), and those of 07) and 08) will be managed by the Center for Integrated Data Science (CIDAS) and 09)–10) will be managed by the Division for Chronological Research.

In 2019, the second ISEE symposium was held at Nagoya University from January 28 to 30, 2020, entitled “Toward the Solar–Terrestrial Environmental Prediction as Science and Social Infrastructure,” and was co-hosted with the 4th PSTEP International Symposium (PSTEP-4), a program led by Professor Kanya Kusano who is the director of ISEE. The second ISEE Award was awarded to the UCSD IPS group (Dr. B. V. Jackson, Dr. H. S. Yu, Dr. P. P. Hick, Dr. A. Buffington, and Dr. D. Odstrcil) for their great contribution to space–Earth environmental research through their studies on the improvement of space weather forecasting through the computer-assisted tomography of IPS data. The award ceremony and memorial lecture were held at Nagoya University on January 29, 2020.

One of the notable activities in FY2019 was a community meeting held in June 2019 inviting the researchers of the Joint Usage/Research program to provide opportunities to communicate among research projects. In addition, we switched the proposal application system from an email basis to a web-basis with support from the Research Organization of Information and Systems. The new system was introduced for the FY2020 program applications.

Lists of Accepted Proposals

■ ISEE International Joint Research Program

Proposer	Affiliation*	Job title*	Corresponding ISEE researcher	Title of the research program
David Tsiklauri	Queen Mary University of London	Senior Lecturer (Tenured Associate Professor)	Kusano, K.	Investigation of the role of kink MHD waves in flare trigger model
Stepan Poluianov	University of Oulu, Finland	Postdoctoral Researcher	Kurita, N.	Model of production-transport-deposition of cosmogenic isotopes over Antarctica with verification with experimental data
R. Kariyappa	Indian Institute of Astrophysics	former Professor & Chairman	Kusano, K. Imada, S.	UV & EUV Solar Irradiance Variability and their impacts on Earth's Climate & Space Weather
Tulasiram Sudarsanam	Indian Institute of Geomagnetism	Associate Professor	Shiokawa, K.	Prompt penetration of convection/overshielding electric fields during the onset of substorms
Baolin Tan	National Astronomical Observatories of Chinese Academy of Sciences (NAOC)	Professor	Masuda, S.	Testing diagnosing of the coronal magnetic field from solar radio observations
Matthias Förster	GFZ German Research Centre for Geosciences	Senior Scientist (retired)	Nishitani, N.	Relation of Swarm satellite and SuperDARN ground-based ion drift measurements
Iskhaq Iskandar	Sriwijaya University	Professor	Ishizaka, J.	Variability in satellite-derived surface chlorophyll-a, Ekman transport and sea surface temperature in the Banda Sea
Anukul Buranapratheprat	Burapha University	Assistant Professor, Faculty of Science	Ishizaka, J.	Detection and modeling of green Noctiluca bloom in the Gulf of Thailand using satellite ocean color
Mykola Gordovskyy	University of Manchester	Research Associate	Kusano, K.	Fluid-kinetic modelling of magnetic reconnection in solar flares and their impact on the heliosphere
Viswanathan L. Narayanan	National Atmospheric Research Laboratory	INSPIRE Faculty	Shiokawa, K. Otsuka, Y.	Investigation of the relationship between nighttime electrified medium scale traveling ionospheric disturbances and middle latitude spread F
Seth Claudepierre	The Aerospace Corporation	Member of the Technical Staff	Miyoshi, Y.	Collaborative radiation belt science: Using multi-spacecraft observations to further our understanding of wave-particle interactions in the Earth's magnetosphere
Samuel Krucker	Univeristy of Applied Sciences Northwestern Switzerland	Professor	Masuda, S.	The NoRH/RHESSI flare catalogue: statistical paper and planning for the future
Kim Nielsen	Utah Valley University	Associate Professor	Nozawa, S.	Energetics of Arctic stratospheric and mesospheric coupling due to small-scale gravity waves
Pravata K. Mohanty	Tata Institute of Fundamental Research (TIFR)	Fellow	Matsubara, Y.	Tomographic study of galactic cosmic anisotropy in near-Earth space by multi-directional cosmic ray observations
Ondrej Santolik	Institute of Atmospheric Physics	Senior Research Scientist / Professor	Miyoshi, Y.	Investigation of electromagnetic wave phenomena using multipoint measurements
Hiroatsu Sato	German Aerospace Center (DLR)	Research Scientist	Otsuka, Y.	Imaging meter-scale density irregularities associated with midlatitude TIDs

* Proposer's affiliation and job title are as of the proposal submission date.

■ ISEE/CICR International Workshop

Proposer	Affiliation*	Job title*	Corresponding ISEE researcher	Title of the research program
Kazuo Shiokawa	Nagoya University	Professor	Shiokawa, K.	VarSITI summarizing workshop
Toru Terao	Kagawa University	Professor	Fujinami, H.	International workshop on decadal challenges for the convincing climate projection and S2S scale prediction of Asian monsoon system
Noriyuki Narukage	National Astronomical Observatory of Japan	Assistant Professor	Tajima, H. Masuda, S.	FOXSI data analysis workshop

* Proposer's affiliation and job title are as of the proposal submission date.

List of Collaboration Resources

■ Instruments

Name	Contact Person
Fourier Transform Infrared (FTIR) Spectrometer for Atmospheric Composition Measurement (Rikubetsu)	T. Nagahama
Optical Mesosphere Thermosphere Imagers	K. Shiokawa
ISEE Magnetometer Network	K. Shiokawa
ELF/VLF Network	K. Shiokawa
Sodium LIDAR (Tromsø)	S. Nozawa
MF Radar (Tromsø)	S. Nozawa
Meteor Radar (Alta)	S. Nozawa
Solar Neutron Telescope (Norikura Observatory, Institute for Cosmic Ray Research, the University of Tokyo)	Y. Matsubara
Low-Background Beta-Ray Counter	N. Kurita
Multi-Station IPS Solar Wind Observation System (Toyokawa, Fuji, and Kiso)	M. Tokumaru
Nobeyama Radioheliograph	S. Masuda
Multi-Directional Cosmic Ray Muon Telescope (Nagoya)	Y. Matsubara
SuperDARN Hokkaido Pair of (HOP) Radars (Rikubetsu)	N. Nishitani
Upper Air Sounding Systems (two sets)	K. Tsuboki
Polarimetric Radar Systems (two sets)	K. Tsuboki
Ka-Band Polarimetric Radar	K. Tsuboki
Hydrometeor Video Sonde (HYVIS) System	K. Tsuboki
ISEE Riometer Network	K. Shiokawa
Sea Spray Aerosol Optical Particle Counter	H. Aiki
Five-Wavelength Photometer (Tromsø)	S. Nozawa

■ Software/Databases

Name	Contact Person
Atmospheric Composition Data by FT-IR Measurements (Moshiri and Rikubetsu)	T. Nagahama
NO ₂ and O ₃ Data by UV/Visible Spectrometer Measurements (Moshiri and Rikubetsu)	T. Nagahama

Name	Contact Person
Coordinated Magnetic Data Along 210° Magnetic Meridian (Moshiri, Rikubetsu, Kagoshima, and Overseas MM Stations)	K. Shiokawa
All-Sky Auroral Data (Canada, Alaska, and Siberia)	K. Shiokawa, Y. Miyoshi
Database of the Optical Mesosphere Thermosphere Imagers	K. Shiokawa
VHF Radar/GPS Scintillation (Indonesia)	Y. Otsuka
EISCAT Database	S. Nozawa, S. Oyama
ELF/VLF Wave Data	K. Shiokawa
Interplanetary Scintillation Data	M. Tokumaru
Solar Wind Speed Data	M. Tokumaru
Cosmic Ray Intensity Database	Y. Matsubara
MHD Simulation on the Magnetospheric Environment	T. Umeda
S-RAMP Database	F. Abe
CAWSES Database	F. Abe
Hinode Science Center, Nagoya University	K. Kusano
ERG Science Center	Y. Miyoshi
QL Plot Archive of Satellite Data for Integrated Studies	Y. Miyoshi
Remei Satellite Observation Database	M. Hirahara
MOA Database	F. Abe
SuperDARN Hokkaido Pair of (HOP) Radars Database	N. Nishitani
Numerical Simulation Codes for Plasma Kinetics	T. Umeda
Cloud Resolving Storm Simulator (CRSS)	K. Tsuboki
Satellite Data Simulator Unit (SDSU)	H. Masunaga
ISEE Riometer Network Database	K. Shiokawa
Energy Flux Diagnosis Code for Atmospheric and Oceanic Waves	H. Aiki

■ Facilities

Name	Contact Person
Computer System for Solar-Terrestrial Environmental Research (Supercomputer System)	F. Abe, T. Umeda
CHN Analyzer, Isotope Ratio Mass Spectrometer	Y. Mino
Tandem Accelerator Mass Spectrometry	H. Kitagawa, M. Minami
Electron Probe Microanalyzer (EPMA)	T. Kato
Ion/Electron Beamline and Calibration Facility	M. Hirahara
Clean Room Facility for Instrument Development	M. Hirahara
CIDAS System	S. Masuda, T. Umeda, Y. Miyoshi
X-Ray Fluorescence Spectrometer (XRF)	T. Kato
X-Ray Diffractometer (XRD)	T. Kato

Name	Contact Person
Facilities at Moshiri Observatory	A. Mizuno
Facilities at Rikubetsu Observatory	A. Mizuno
Facilities at Kiso Station	M. Tokumaru
Facilities at Fuji Observatory	M. Tokumaru
Facilities at Kagoshima Observatory	K. Shiokawa

ISEE Award

Winner	Title	Date of Award Ceremony
University of California San Diego IPS Group (Dr. B. V. Jackson, Dr. H. S. Yu, Dr. P. P. Hick, Dr. A. Buffington, Dr. D. Odstrcil)	Contribution to Space-Earth Environmental Research through Studies on the Improvement of Space Weather Forecasting by the Computer-Assisted Tomography of Interplanetary Scintillation Data	Jan. 29, 2020

6. Governance

As of Mar 31, 2020

Advisory Board

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Nobuhiro Takahashi	Institute for Space–Earth Environmental Research, Nagoya University
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Masafumi Hirahara	Institute for Space–Earth Environmental Research, Nagoya University

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Takashi Minoshima	Japan Agency for Marine-Earth Science and Technology
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Takenori Kato	Institute for Space–Earth Environmental Research, Nagoya University
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Taro Shinoda	Institute for Space–Earth Environmental Research, Nagoya University
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Hiroyasu Tajima	Institute for Space–Earth Environmental Research, Nagoya University

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Hiroyasu Tajima	Institute for Space–Earth Environmental Research, Nagoya University
Masafumi Hirahara	Institute for Space–Earth Environmental Research, Nagoya University

7. Finance

External Funding and Industry–Academia–Government Collaborations

Researches of ISEE members as principle investigator were supported by the following external funds.

Kakenhi category	Number of subjects	Total amount (JPY)
Grant-in-Aid for Specially Promoted Research	1	60,320,000
Grant-in-Aid for Scientific Research on Innovative Areas	8	93,540,000
Grant-in-Aid for Scientific Research (S)	3	105,170,000
Grant-in-Aid for Scientific Research (A)	5	66,080,000
Grant-in-Aid for Scientific Research (B)	12	58,110,000
Grant-in-Aid for Scientific Research (C)	6	7,280,000
Challenging Research (Exploratory)	6	13,910,000
Grant-in-Aid for Young Scientists (A)	1	3,120,000
Grant-in-Aid for Young Scientists (B)	2	2,210,000
Early-Career Scientists	3	4,550,000
Grant-in-Aid for JSPS Research Fellow	2	14,300,000
Fund for the Promotion of Joint International Research (International Group)	1	14,950,000
Fund for the Promotion of Joint International Research (Fostering Joint International Research (B))	4	2,600,000
Total	54	446,140,000

- Fifty-four research subjects listed in the table were supported by the JSPS Kakenhi.
- Thirty research subjects received total 174,038,009 JPY from governmental funds except KAKENHI, and from other universities and companies. Thirteen of them were collaborative researches between ISEE and companies, or national institutes.
- Nine research subjects received total 5,730,160 JPY of donation.

Library

■ Library, Solar-Terrestrial Sciences (ISEE Library #1)

Book

Japanese	2,985
Foreign	11,154

Journals

Japanese	47
Foreign	207

■ Library, Hydrospheric-Atmospheric Sciences (ISEE Library #2)

Book

Japanese	4,726
Foreign	8,869

Journals

Japanese	275
Foreign	249

Properties

	Site (m ²)	Bulidings (m ²)	Location
Higashiyama Campus (Main campus of Nagoya University)	-	9,005	Nagoya
Toyokawa Campus	94,212	1,461	Toyokawa
Moshiri Observatory	110,534	325	Hokkaido
Rikubetsu Observatory	24,580	167	Hokkaido
Kagoshima Observatory	13,449	287	Kagoshima
Fuji Observatory	19,926	174	Yamanashi
Sugadaira Station	3,300	0	Nagano
Kiso Station	6,240	66	Nagano
Total	272,241	11,485	