

The 5th ISEE Symposium:

Second Announcement

Toward the Future of Space–Earth Environmental Research

Date: November 15 to 17 (Tuesday to Thursday), 2022

Venue: Sakata–Hirata Hall, Nagoya University (Higashiyama campus, Nagoya city, Japan)

This symposium is a hybrid conference with both in-person and online attendance options.

Host: Institute for Space–Earth Environmental Research (ISEE), Nagoya University

Web page: <http://www.isee.nagoya-u.ac.jp/symposium05>

We plan to hold the 5th ISEE symposium – *Toward the Future of Space–Earth Environmental Research* – in autumn 2022, aiming to share space–Earth environmental research's present status and prospects through interdisciplinary discussion from various aspects. The symposium covers topics on space–Earth sciences and new approaches to multidisciplinary collaboration, including the discussion also for the capacity building of young scientists. The symposium comprises six topical sessions, panel discussions on the future challenge of space–Earth environmental research, and poster sessions.

Each topical session is about 2 hours, consisting of the invited keynote (30 min), solicited (20 min), and contributed (10 min) presentations. Each session contains a discussion on the future plan of ISEE as well as the capacity building of young scientists (10 min).

Important Dates

20 July, 2022: Open the registration and abstract submission site

29 September, 2022: Deadline for abstract submission and early-bird registration

15 October, 2022: Deadline for registration

Free Registration

Registration and submission of abstract for this symposium are both free.

ISEE Award Ceremony: (11:40–12:40 JST on Wednesday, November 16th)

Aiming to develop space–Earth environmental research, promote interdisciplinary research, and explore the new discipline of space–Earth environmental research, we present the ISEE Award each year to a prominent research activity based on the ISEE Joint Research Program. The 2022 ISEE Award Ceremony will be held during this symposium.

Contact: kyodo-isee@isee.nagoya-u.ac.jp

Scientific Organizing Committee (SOC):

K. Kusano (Chair of SOC, the director of ISEE)

Y. Kasahara (Kanazawa University)

Y. Kokubu (Japan Atomic Energy Agency)

M. Koike (The University of Tokyo)

Y. Miyoshi, T. Hiyama, K. Shiokawa, N. Takahashi, K. Iwai, F. Miyake (ISEE)

Local Organizing Committee (LOC):

H. Aiki (Chair of LOC, ISEE)

S. Masuda, Y. Otsuka, M. Nose, T. Nagahama, T. Kato, T. Shinoda, M. Minami (ISEE)



Sakata-Hirata Hall, Nagoya University

Tuesday, November 15th

Opening (9:30–9:40 JST)

Kanya Kusano (ISEE)

Session 1 (9:40–11:40, Chairs: Tetsuya Hiyama and Tomoo Nagahama)

Climate variations in space–Earth environment: paleoclimate, global warming, and space climate

Introduction (10 min)

Tetsuya Hiyama (ISEE)

Keynote presentation (30 min)

Go Iwahana (Univ. of Alaska Fairbanks)

Solicited presentation (20 min each):

Hiroko Miyahara (Musashino Art Univ.)

Toru Tamura (The National Institute of Advanced Industrial Science and Technology)

Hisashi Hayakawa (ISEE)

Contributed presentation and discussion (20 min)

Lunch (11:40–12:40)

Poster 1 (12:40–13:50)

Session 2 (13:50–16:00, Chairs: Yoshizumi Miyoshi, Yoshiya Kasahara, and Taro Shinoda)

Prediction and mitigation of disaster in space–Earth environment: typhoon, torrential rain, space weather disaster prevention, and forecasting technology

Introduction (10 min)

Yoshizumi Miyoshi (ISEE)

Keynote presentation (30 min)

Mamoru Ishii (National Institute of Information and Communications Technology)

Solicited presentation (20 min each)

KD Leka (NorthWest Research Associates / ISEE)

Bruce Tsurutani (JPL)

Takemasa Miyoshi (Riken)

Chun-Chieh Wu (National Taiwan Univ.)

Discussion (10 min)

Break (16:00–16:15)

Panel Discussion Theme I (16:15–17:25, Chairs: Tetsuya Hiyama and Yoshizumi Miyoshi)

Climate variability and disaster mitigation in the space–Earth environment

Introduction (10 min)

Tetsuya Hiyama and Yoshizumi Miyoshi (ISEE)

Solicited and short presentations (20 min and 5 min, respectively)

José Vaquero (Univ. of Extremadura)

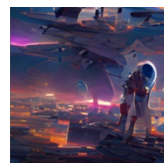
Go Iwahana (Univ. of Alaska Fairbanks)

Mamoru Ishii (National Institute of Information and Communications Technology)

Hiroko Miyahara (Musashino Art Univ.)

Kazuhisa Tsuboki (ISEE)

Discussion (20 min)



Wednesday, November 16th

Session 3 (9:30–11:30, Chairs: Kanya Kusano and Hidenori Aiki)

Next-generation computational science in space–Earth environmental research: Advanced simulation, integrated modeling, machine learning, and data science

Introduction (10 min)

Takayuki Umeda (ISEE)

Keynote presentation (30 min each)

Hideyuki Hotta (Chiba Univ.)

Takeshi Enomoto (Kyoto Univ.)

Solicited presentation (20 min each):

Hidekatsu Jin (National Institute of Information and Communications Technology)

Prabir Patra (Japan Agency for Marine–Earth Science and Technology)

Discussion (10 min)

Break (11:30–11:40)

ISEE Award ceremony (11:40–12:40)

Lunch (12:40–13:50)

Session 4 (13:50–15:50, Chairs: Nobuhiro Takahashi, Makoto Koike, Yuichi Otsuka, and Masahiro Nose)

Next-generation observation of space–Earth environmental research: future planning of satellite missions, aircraft, ground observation, and measurement technology

Introduction (10 min)

Nobuhiro Takahashi (ISEE)

Keynote presentation (30 min)

James Crawford (NASA)

Solicited presentation (20 min each):

Yoshifumi Saito (JAXA)

Craig Heinselman (European Incoherent Scatter Scientific Association)

Tomoo Ushio (Osaka Univ.)

Contributed presentation and discussion (20 min)

Break (15:50–16:05)

Panel Discussion Theme II (16:05–17:05, Chairs: Kanya Kusano and Nobuhiro Takahashi)

Next-generation observation and computation for space–Earth environmental research

Introduction (10 min)

Kanya Kusano and Nobuhiro Takahashi (ISEE)

Short presentations (5 min each)

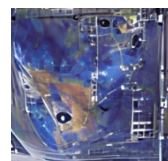
James Crawford (NASA)

Hideyuki Hotta (Chiba Univ.)

Takeshi Enomoto (Kyoto Univ.)

Kazumasa Iwai (ISEE)

Discussion (30 min)



Thursday, November 17th

Session 5 (9:30–11:40, Chairs: Kazuo Shiokawa, Masayo Minami, and Kazumasa Iwai)

International collaborations for space–Earth environmental research from present to future

Introduction (10 min)

Kazuo Shiokawa (ISEE)

Keynote presentation (30 min)

Nat Gopalswamy (NASA)

Solicited presentation (20 min each):

Seung-Gu Lee (Korea Institute of Geoscience and Mineral Resources)

Masayuki Kondo (ISEE)

Rumi Nakamura (Univ. of Graz)

Contributed presentation and discussion (20 min)

Lunch (11:30–12:30)

Poster 2 (12:30–13:50)

Session 6 (13:50–15:50, Chairs: Takenori Kato, Fusa Miyake, Satoshi Masuda, and Yoko Kokubu)

Interdisciplinary fusion in space–Earth environmental research: possibilities and challenges of fusion of Earth science, space science, anthropology, and history

Introduction (10 min)

Kanya Kusano (ISEE)

Keynote presentation (30 min each)

Ilya Usoskin (Univ. of Oulu)

Seiji Kadowaki (Nagoya Univ.)

Solicited presentation (20 min each)

Haji Hossein Azizi (Kurdistan Univ.)

Takeshi Nakatsuka (Nagoya Univ.)

Discussion (10 min)

Break (15:50–16:05)

Panel Discussion Theme III (16:05–17:05, Chairs: Kazuo Shiokawa and Masayo Minami)

International and interdisciplinary collaboration for space–Earth environmental research

Intoroduction (10 min)

Kazuo Shiokawa and Masayo Minami (ISEE)

Short presentations (5 min each)

Nat Gopalswamy (NASA)

Ilya Usoskin (Univ. of Oulu)

Seiji Kadowaki (Nagoya Univ.)

Takenori Kato (ISEE)

Tac Nakajima (ISEE)

Craig Heinselman (European Incoherent Scatter Scientific Association)

Discussion (20 min)

Closing (17:05–17:15)

Kanya Kusano (ISEE)



The 5th ISEE Symposium is followed by the ISEE Community Meeting 2022 on Friday, November 18th, to be announed later at <https://www.isee.nagoya-u.ac.jp/co-re/meeting.html>