APSAR 2025

The 9th Asia-Pacific Conference on Synthetic Aperture Radar (APSAR2025)

Organized by

EiC

IEEE GRSS Geoscience and Remote Sensing Society

IEEE Geoscience and Remote Sensing Society
All Japan Joint Chapter

PROGRAM AT A GLANCE

October 4 (Saturday), 2025

Time	International Conference Hall (3F)	Multipurpose Hall (1F)	Small Hall (1F)	Large Conference Room 501 (5F)	Large Exhibition Hall (1F)
10:30-16:30				IEEE GRSS ReACT Tutorial	
16:30-21:00				ReACT Mixer (tentative)	

October 5 (Sunday), 2025

Time	International Conference Hall (3F)	Multipurpose Hall (1F)	Small Hall (1F)	Large Conference Room 501 (5F)	Large Exhibition Hall (1F)
9:50-17:15				APSAR/IEEE GRSS All Japan Joint Chapter SAR Tutorial	
17:30-18:30					Welcome Reception

October 6 (Monday), 2025

Time	International Conference Hall (3F)	Multipurpose Hall (1F)	Small Hall (1F)	Large Conference Room 501 (5F)	Large Exhibition Hall (1F)
10:00-10:30	Opening Ceremony				
10:30-10:45	Group Photo				
10:45-11:00	Coffee Break (Large Exhibition Hall)				
11:00-12:30	Keynote Speeches I				
12:30-13:30	Lunch Break				
13:30-15:00	Keynote Speeches II				
15:00-15:30	Coffee Break (Large Exhibition Hall)				
15:30-16:50	Spaceborne SAR Systems & Missions	SAR Interferometry	Machine Learning, Deep Learning, & Data Fusion		

October 7 (Tuesday), 2025

Time	International Conference Hall (3F)	Multipurpose Hall (1F)	Small Hall (1F)	Large Conference Room 501 (5F)	Large Exhibition Hall (1F)
9:00-10:20	Moving Target Detection & Indication	PolSAR	Next Generation SAR Systems & Missions I		
10:20-10:50	Coffee Break (Large Exhibition Hall)				
10:50-11:50	Digital Elevation Modeling	Urban Infrastructure	Image Filtering, Correction, & Enhancement		
11:50-12:45	Lunch Break				
12:45-17:00	Excursion: Izumo Half Day Tour				
18:00-20:30	Banquet (Yuushien Japanese Garden)				

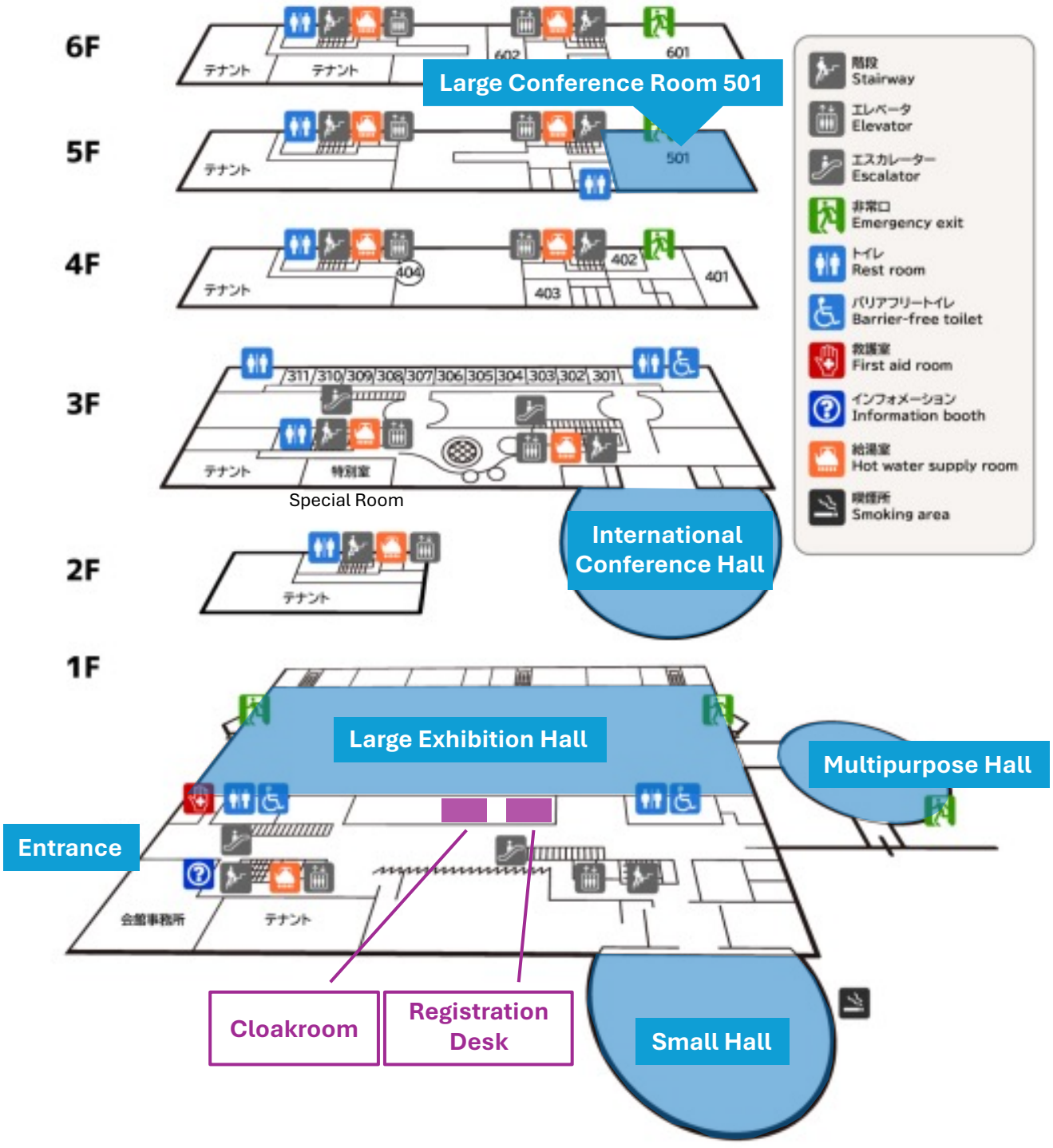
October 8 (Wednesday), 2025

Time	International Conference Hall (3F)	Multipurpose Hall (1F)	Small Hall (1F)	Large Conference Room 501 (5F)	Large Exhibition Hall (1F)
9:00-10:20	Imaging Technique	Next Generation SAR Systems & Mission II	Best Student Paper Award (BSPA) Session I		
10:20-10:50	Coffee Break (Large Exhibition Hall)				
10:50-11:50	Ice, Snow, & Glacier	ALOS Series I	Best Student Paper Award (BSPA) Session II		
11:50-12:10	Lunch Break				
12:10-12:55					Recruitment Festival
13:20-15:20					Poster Session
15:30-16:50	UAV, Ground-based, & Sbsurface Sensing	ALOS Series II	Geohazard I		

October 9 (Thursday), 2025

Time	International Conference Hall (3F)	Multipurpose Hall (1F)	Small Hall (1F)	Large Conference Room 501 (5F)	Large Exhibition Hall (1F)
9:00-10:20	SAR System Design: Antennas, Calibration, & Emerging Technologes	Imaging SImulation	Geohazard II		
10:30-11:00	Closing Ceremony				

FLOOR MAP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特別室
Special Room
International Conference Hall
Large Exhibition Hall
Multipurpose Hall
Entrance
会館事務所
Cloakroom
Registration Desk
Small Hall
階段 Stairway
エレベータ Elevator
エスカレーター Escalator
非常口 Emergency exit
トイレ Rest room
バリアフリートイレ Barrier-free toilet
救護室 First aid room
インフォメーション Information booth
給湯室 Hot water supply room
喫煙所 Smoking area

I. Welcome Message

Asia-Pacific Conference on Synthetic Aperture Radar (APSAR) is an international conference devoted to SAR technology development and applications and Co-Sponsored by Institute of Electronics, Information and Communication Engineers (IEICE), Japan and IEEE Geosciences and Remote Sensing Society (GRSS) All Japan Joint Chapter. The APSAR is a forum of Synthetic Aperture Radar (SAR) engineers and scientists from all over the world, especially from the Asia-Pacific region. The bi-annual APSAR conference is held every two years in China, Japan, Korea, Australia, and Singapore in turn, and The 9th Asia-Pacific Conference on Synthetic Aperture Radar was planned to be held in Matsue, Shimane, Japan.

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V. Conference Information

Registration

Registration Desk Hours	
October 5 (Sunday)	: 1:00 pm - 6:30 pm
October 6 (Monday) - 8 (Wednesday)	: 9:00 am - 5:00 pm
October 9 (Thursday)	: 9:00 am - 11:00 am

Upon your first visit, please check in at the registration desk.

On-site registration with credit card payment is available for participants who have not yet registered.

Lunch

Lunch Break

Eating and drinking are permitted only in the Large Exhibition Hall.

Lunch Box Distribution Location (Pre-registration required)

Pre-ordered lunch boxes (ordered via the APSAR website) will be distributed during lunch break in the **Large Exhibition Hall (1F)**.

You will **need the ticket** given with your name badge at registration to receive your lunch box.

Restaurants Information

Participants who have not ordered a lunch box may use restaurants near the venue. Recommended restaurants are introduced at Restaurants.

Event Zone

Recruitment Festival

Date & Time: October 8 (Wednesday), 12:10-12:55

Location: Large Exhibition Hall (1F)

APSAR 2025

RECRUITMENT FESTIVAL

Date: **October 8, 2025 (Wed)**

Time : **Lunch Break (12:10-12:55)**

Location: **Large Exhibition Hall**

Are you a student attending APSAR 2025? Are you looking to kickstart your career in the exciting field of Synthetic Aperture Radar (SAR) and related technologies? We're thrilled to announce a dedicated Recruitment Festival designed specifically for you!
This is a unique opportunity to connect directly with leading companies at the forefront of SAR research, development, and application.

12:10-12:15 Asia Air Survey Co., Ltd.
12:15-12:20 Kokusai Kogyo Co., Ltd.
12:20-12:25 MITSUBISHI ELECTRIC CORPORATION
12:25-12:30 OYO CORPORATION
12:30-12:35 PASCO CORPORATION
12:35-12:40 Remote Sensing Technology Center of Japan (RESTEC)
12:40-12:45 Satellite Data Services Co., Ltd.
12:45-12:50 Space Shift Inc.
12:50-12:55 Synspetive Inc.

🌎 What to Expect

- **Meet Potential Employers:** Engage with representatives from 9 of our esteemed conference sponsors.
- **Learn About Career Opportunities**: Discover various career paths, internships, and entry-level positions available within the SAR industry.
- **Company Presentations:** Gain insights into the companies' cutting-edge work through informative presentations and engaging videos.
- **Networking:** Build valuable connections with industry professionals and expand your professional network.

📝 Participation

- **No pre-registration required** – just come to the venue!

👉 **Calling All Students! Don't Miss Our Exclusive Recruitment Festival!**

👉 Sponsors: APSAR 2025 | Sponsors

VI. Social Programs

Welcome Reception

Date & Time: October 5 (Sunday), 17:30-18:30

Location: Large Exhibition Hall (1F)

Banquet

Date & Time: October 7 (Tuesday), 18:00-20:30

Location: Yuushien Japanese Garden

VII. Excursion

Izumo Half Day Tour

Date & Time: October 7 (Tuesday), 12:45-17:00

Time Schedule

12:45	Meet at the entrance of Kunibiki Messe (venue)
13:00	Depart Kunibiki Messe by bus
14:00 - 14:50	Visit “Izumo Grand Shrine”
14:50	Meet at the parking area near “Izumo Grand Shrine”
15:00 - 15:25	Travel by bus to “Izumo Hinomisaki Lighthouse”
15:25 - 15:50	Visit “Izumo Hinomisaki Lighthouse”
15:50	Meet at the parking area near “Izumo Hinomisaki Lighthouse”
17:00	Return to Kunibiki Messe

※ In case of rain, go to “Shimane Winery” instead of “Izumo Hinomisaki Lighthouse”.

※ After the excursion, the banquet will be held at the restaurant in “Yuushien Japanese Garden”.

VIII. Awards

Award Information

The APSAR will recognize outstanding research works presented at the conference in two categories:

- Best Paper Award

- Best Student Paper Award

Awards for Best Paper and Best Student Paper will be presented on the last day of the conference.

Best Paper Award

The Best Paper Award recognizes excellence in original research, innovative thinking, and the quality and impact of published work.

- Candidates shall be presenters who submit full paper manuscripts and make presentations in person at the APSAR2025.
- The winners will be announced and awarded at the closing ceremony on the final day.

Best Student Paper Award

The Best Student Paper Award recognizes excellence in a paper presented at the APSAR2025 Conference whose primary author is a student at the time of presentation.

The applicants are required to submit your full paper manuscript. Please improve the manuscript and submit final version according to deadlines on the APSAR2025 website.

The applicants are required to participate to the conference, personally make presentation. This presentation will also be included in the award evaluation.

The winners will be announced and awarded at the closing ceremony on the final day.

Requirements for Student Paper Contest:

- Students are required to submit by the initial submission deadline of 21 March 2025.
- Publish-ready 2 column manuscript (4 pages): this document will be judged for the spc.
- Proof of student status: a copy of your student id in jpg file or a letter from your university or school stating that you are a student currently enrolled in a degree program.

IX. Keynote Speeches

Keynote Speeches I

Session Date	October 6 (Monday), 2025
Session Time	11:00 - 12:30
Session Room	International Conference Hall (3F)
Session Chair(s)	Junichi Susaki

Keynote Talk I 11:00-11:30

Accuracy Improvement of Mineral and Geothermal Resources Exploration by Increasing Reflectance Spectral and Spatial Properties Information of Satellite Image Data

Prof. Katsuaki Koike

(Kyoto Univerisy, Japan)

Abstract

Demand of mineral resources including base and rare metals and rare earth elements has largely increased for supporting many aspects such as infrastructure, advanced technology, and low-carbon society. This increase trend is forecasted to continue and accelerate hereafter. In addition, the importance of geothermal resource has recently increased for renewable energy-based power generation owing to its large power output and high operation rates. Both metal and geothermal resources are deeply seated and therefore, accurate detection/specification of high potential resource zones are more and more important and required globally. Aiming at this achievement, my Laboratory has developed the following methods using optical sensor and SAR satellite image data.

The first approach is the pseudo-hyperspectral image transformation algorithm (PHITA). A critical issue that reduces a mineral's detection accuracy is a limited number of bands in a multispectral sensor image. In contrast, hyperspectral sensors have hundreds of bands with high spectral resolution, which can be used to unravel the absorption features of a target mineral. However, the availability of hyperspectral images is quite limited in certain areas. Because multispectral images cover almost the entire Earth surface, they have the possibility to simulate hyperspectral images. PHITA combines band reflectance data between multispectral and hyperspectral images using a multiple linear regression model or machine-learning method. PHITA was applied to hydrothermal deposit and geothermal areas in the west United States, northern Chile, and northern Australia and representative typical hydrothermal alteration minerals such as alunite, kaolinite, and pyrophyllite were detected successfully from multispectral images with limited number of band data.

The second approach is the entire detection of the surface deformation of a geothermal area using InSAR with geostatistics to specify the locations and shapes of the heat sources. Persistent scatterer and small baseline subset InSAR were used with a Sentinel-1 dataset. Geostatistical techniques, ordinal kriging and turning bands simulation, are successfully applied to compensate for undetected displacement pixels owing to low coherence and decompose the line-of-sight displacement into vertical and horizontal east–west displacements using both the ascending and descending mode results and the least-squares method. A detailed displacement pattern is revealed for the whole study area in Indonesia. Via the vertical displacement pattern in the study period and a Bayesian inversion, one circular source, equivalent to a magma reservoir, and one dyke source are identified. This information is effective for locating geothermal resources generated above the reservoir.

Other approaches are new vegetation index to accurately detect vegetation stress caused by metals in soils from deposits and modeling fracture system, which can act as ascent paths of hydrothermal fluids and host mineral and geothermal resources, from linear features on imagery.

Keynote Talk II 11:30-12:00

Perspectives of Operational Weather Radars in Japan Heading to climate change adaptation.

Prof. Eikichi Nakatani
(Kyoto Univerisy, Japan)

Abstract

Even a single cumulonimbus cloud can cause flash floods and urban flooding through its heavy rain (guerrilla heavy rainfall). Climate change is predicted to increase the intensity and frequency of torrential downpours.

In this context, early detection of heavy rainfall using weather radar will become increasingly important. In Japan, a network known as XRAIN has been established, using a group of polarimetric Doppler radars to accurately and precisely observe torrential downpours in three dimensions, both in fine time and space, and an early detection system for guerrilla heavy rainfall using this has been developed.

Furthermore, phased array radar, a cutting-edge radar capable of observing rainfall in even more detail, is on the verge of being put into practical use, and a preliminary early detection system for torrential downpours using this radar is also being developed.

This presentation will introduce these technologies.

Keynote Talk III 12:00-12:30

Radar Vegetation Indices: Bridging Crop Insurance with Remote Sensing Data Analysis

Prof. Avik Bhattacharya

(Indian Institute of Technology Bombay, India)

Abstract

The convergence of agricultural finance, crop insurance, and Earth observation technologies is reshaping risk assessment and credit allocation in farming systems. This presentation will explore the emerging role of radar vegetation indices and other remote sensing–derived biophysical indicators in providing scalable and timely insights for crop monitoring. By leveraging Analysis Ready Data (ARD) from satellite-borne sensors—including medium-resolution optical imagery and Synthetic Aperture Radar (SAR) datasets from providers such as Copernicus, EOS, upcoming NISAR—this approach minimizes pre-processing burdens, enabling direct integration into decision-making workflows. Such streamlined data pipelines empower diverse stakeholders—insurers, agri-fintech companies, policymakers, and extension agencies—to translate raw Earth Observation (EO) data into actionable crop risk intelligence. While unmanned aerial vehicle (UAV) deployment remains limited at present, satellite-based ARD ensures consistent coverage, continuity, and rapid turnaround, making it a cornerstone for worlds' evolving crop insurance and agri-tech nexus. The session will highlight how ARD-driven vegetation indices can be operationalized for crop credit scoring, yield forecasting, and insurance claim validation, thereby fostering transparent, data-driven agricultural financing and improving end-user utility from farm to policy table.

Keynote Speeches II

Session Date	October 6 (Monday), 2025
Session Time	13:30 - 15:00
Session Room	International Conference Hall (3F)
Session Chair(s)	Kei Suwa

Keynote Talk IV 13:30-14:00

Synthetic Aperture Radar Processing for GPR

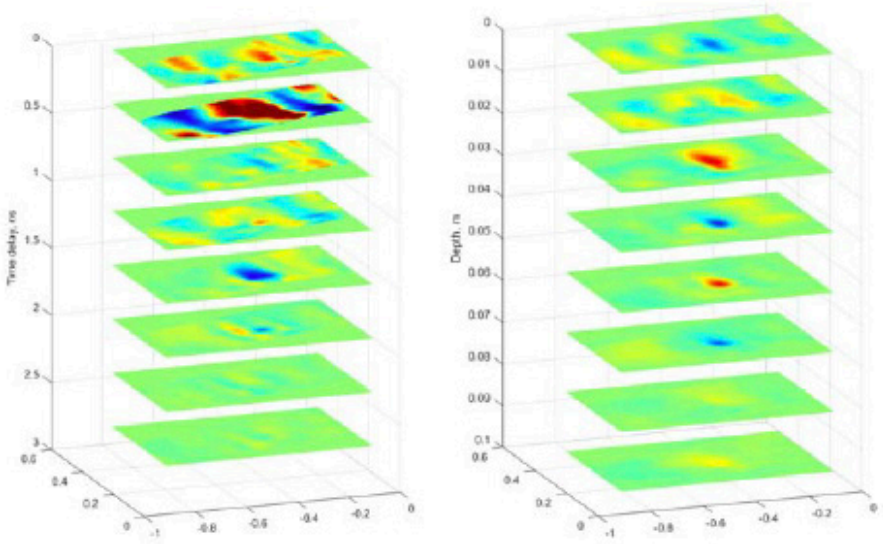
Prof. Motoyuki Sato

(Tohoku Univerisy/Higashi Nippon International University, Japan)

Abstract

Ground penetrating radar (GPR) is widely used for subsurface exploration. It is useful for detection of buried objects such as pipes, caves and inspection of the condition of pavement of roads. GPR can provide vertical section profiles while data acquisition. However, if GPR data is acquired with the position information, Synthetic Aperture Radar (SAR) processing can be applied, and it improves the quality of subsurface information. 2-D and 3-D image reconstruction in GPR is useful in applications including archaeology and landmine detection.

Figure 1: Mine detection by GPR in Ukraine



(a) Raw GPR data (b) SAR processed image

Figure 2: Imaging a buried landmine by SAR processing.

Figure 1 shows the GPR system that we developed, which is used for landmine detection in mine affected countries including Ukraine. This GPR system can trace the antenna position while manual hand scanning, and GPR data can be processed by SAR algorithm. Figure 2 compares the 3D images of a buried landmine with and without SAR processing. By SAR processing, we can clearly see the shape of the buried mine. We found that SAR processing is useful not only for image reconstruction but also clutter rejection, which is quite important in GPR survey.

Keynote Talk V 14:00-14:30

The current status of ALOS-4

Mr. Yukihiro Kankaku

(Japan Aerospace Exploration Agency (JAXA), Japan)

Abstract

The Advanced Land Observing Satellite-4 “Daichi-4” (ALOS-4), which was launched on July 1st, 2024, by H3 launch vehicle from Tanegashima Space Center, is a follow-on mission of ALOS-2 “Daichi-2”. ALOS-4 carries the state-of-the-art L-band SAR named the Phase Array type L-band Synthetic Aperture Radar-3 (PALSAR-3) to meet higher user requirements than those of ALOS-2. With further improved observation performance compared to PALSAR-2 aboard ALOS-2, JAXA and Mitsubishi Electric Corporation as the prime contractor, developed ALOS-4 for achieving both high resolution and a broader observation swath. The observation swath is extended to 200 km, which is four times wider than that of PALSAR-2 by using the Digital Beam Forming (DBF) technique while maintaining the high resolution. Therefore, we can observe a broader area at the same time when a large-scale disaster that damages wide areas occurs, such as a huge earthquake or multiple eruptions at the same time.

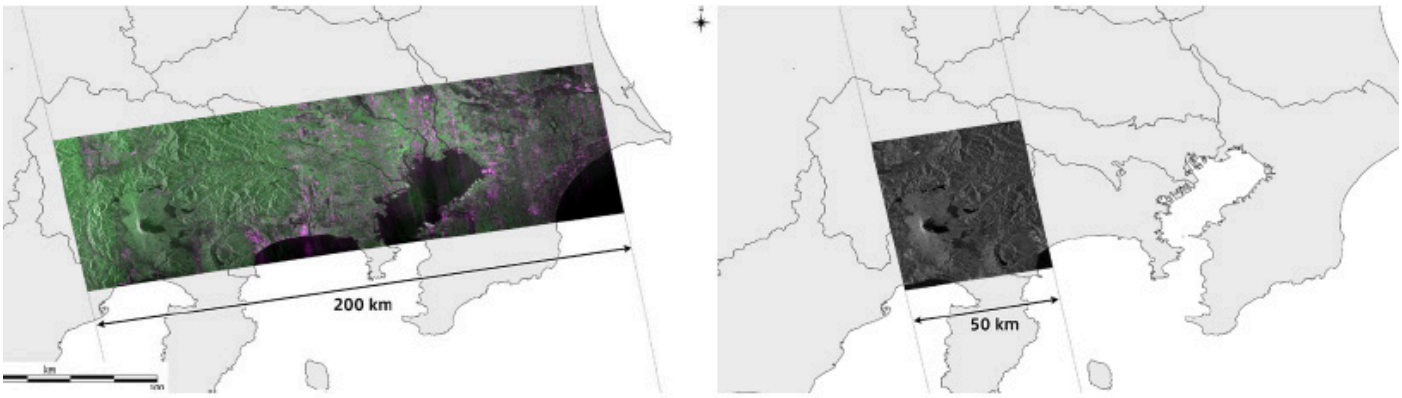


Figure 1: The first image of ALOS-4 (left) compared to ALOS-2 image (right)

ALOS-4 also carries the Space-based Automatic Identification System (AIS) for ships Experiment 3 (SPAISE3), which is a successor to SPAISE2 onboard ALOS-2. The features of SPAISE3 are the antenna composed of eight elements, and AIS signal processing that adopts a ground-based DBF system as one of the methods to eliminate AIS signal collision in crowded ship areas. PALSAR-3 and SPAISE3 will generate vast amounts of data due to their enhanced performance and higher image resolution. To be compatible with high-resolution and wide-swath observation, high-speed and large-capacity mission data handling between the satellite and ground stations is necessary. The transmission system uses Ka-band to perform frequency multiplexing and achieves high transmission speeds of 3.6 Gbps by using it in combination with 16QAM. 3.6 Gbps is the fastest RF direct downlink speed from an Earth observation satellite to ground stations. JAXA also developed a next-generation data relay system called “LUCAS” using an optical link for inter-satellite communication. LUCAS can increase the mission data transmission rate to 1.8 Gbps. After the launch, the critical phase, initial checkout phase, and initial calibration and verification phase were completed and the basic observation started in early April. In this presentation, the status of ALOS-4 will be introduced.

Keynote Talk VI 14:30-15:00

Building Infrastructure For Sustainable Future

Mr. Keizo Fujiwara
(Synspective, Japan)

Abstract

Synspective's mission is to build a new infrastructure that empowers the next generation to better understand our planet and foster a resilient future. In an era of increasing environmental uncertainty and rapid urbanization, the ability to observe and interpret Earth's dynamics is more critical than ever. Our vision is to enable data-driven decision-making that supports sustainable development, disaster resilience, and climate adaptation.

Achieving global-scale data analysis demands consistent, reliable, and unbiased information delivered in near real-time. Traditional Earth observation methods often fall short due to limitations in coverage, weather dependency, and latency. To overcome these challenges, Synspective is deploying a constellation of Earth observation (EO) satellites equipped with Synthetic Aperture Radar (SAR). SAR technology is uniquely capable of capturing high-resolution imagery regardless of weather conditions or time of day, making it indispensable for continuous monitoring of the Earth's surface.

The strategic advantage of SAR lies in its ability to penetrate cloud cover and operate in darkness, providing uninterrupted data streams. To fully harness this capability, Synspective is building and launching a fleet of compact, cost-effective SAR satellites. This miniaturized design not only reduces production and launch costs but also enables scalable deployment. However, this approach introduces new challenges in satellite manufacturing, integration, and operational coordination.

Beyond hardware, the true value of SAR lies in its data. Yet, interpreting SAR imagery remains complex for many end users, particularly those without specialized technical expertise. As our constellation grows, we face additional hurdles: (1) optimizing satellite tasking to meet diverse use cases, (2) managing and processing vast volumes of data efficiently, and (3) minimizing latency to support near real-time applications such as emergency response and national security.

To address these challenges, Synspective is developing a robust platform that fuses scientific research with engineering innovation. This platform is designed to bridge two critical gaps: the technological gap between satellite capabilities and user accessibility, and the application gap between raw data and actionable insights. By aligning satellite operations with user needs, we aim to democratize access to SAR data and accelerate the development of practical applications.

Ultimately, our goal is to transform SAR data into a universally accessible resource that empowers governments, businesses, and communities to make informed decisions. Through this keynote, we will share our journey, insights, and vision for how satellite technology can contribute to a more resilient and sustainable future.

X. Technical Program

Important Notice

All authors must review and confirm the following:

- **APSAR 2025 will be held as an on-site (in-person) conference only**.
- **Each presentation must be given by one of the authors**. Proxy or substitute presenters are not allowed.
- Presentations must be given in English.
- **Presenters must complete their registration** via the Amarys system by **September 5**: https://apsar2025.ce.t.kyoto-u.ac.jp/Registration/registration.php
- If registration is not completed by the deadline, the presentation will be considered withdrawn, the title will be removed from the final program, and the corresponding full paper will not be included in IEEE Xplore.

Oral Presentations

Each oral presentation is allocated **15 minutes**, followed by **4 minutes for Q&A**. Presenters must strictly adhere to the allotted time.

All presentation rooms will be equipped with a screen, projector, lectern, and microphone. Presenters are required to use **their own laptop** for the presentation.

An **HDMI cable** will be provided in each room.

Please arrive at the session room **at least 10 minutes in advance** to meet the session chair and **test the HDMI connection** to ensure compatibility.

Poster Presentations

Poster presentations must be delivered **in person**. Presenters are required to be at their poster **during the assigned session time**. Posters without a presenter during their assigned time slot will be considered a **no-show**.

The poster session will be divided into **two one-hour sessions**. Each paper will be assigned to either the first or second session based on its poster number.

Please make sure to present **during your assigned session only**. Attendance during the unassigned session is encouraged for viewing and discussing other posters.

Posters may be mounted starting from 9:30 AM on the day of the session, and must be removed **by 4:30 PM.**

Poster boards will be available in the designated poster area.

One poster board will be provided per paper. Each board has a usable area of **115 cm (width) × 205 cm (height).** Posters do not need to fill the entire space, but they **must not exceed** the allocated size.

Poster boards and push pins will be provided at the venue.

Opening Ceremony

Session Date	October 6 (Monday), 2025
Session Time	10:00 - 10:30
Session Room	International Conference Hall (3F)
Session Chair(s)	Hideomi Gokon

10:00-10:03

Opening Address

10:03-10:13

Opening Remarks by APSAR 2025 General Chair: Junichi Susaki

10:13-10:18

Welcome Address by Guest-Of-Honor: Hiroki Otani, President of Shimane Univerisity

10:18-10:28

Welcome Address by Guest-Of-Honor: Saibun Tjuatja, 2025 IEEE GRSS President

10:28-10:30

Closing Address

Keynote Speeches I

Session Date	October 6 (Monday), 2025
Session Time	11:00 - 12:30
Session Room	International Conference Hall (3F)
Session Chair(s)	Junichi Susaki

[KT-01] Keynote Talk I 11:00-11:30

Accuracy Improvement Of Mineral And Geothermal Resources Exploration by Increasing Reflectance Spectral And Spatial Properties Information Of Satellite Image Data

Prof. Katsuaki Koike, Kyoto University

[KT-02] Keynote Talk II 11:30-12:00

Perspectives Of Operational Weather Radars In Japan Heading Toward Climate Change Adaptation

Prof. Eiichi Nakakita, Kyoto University

[KT-03] Keynote Talk III 12:00-12:30

Radar Vegetation Indices: Bridging Crop Insurance With Remote Sensing Data Analysis

Prof. Avik Bhattacharya, Indian Institute of Technology Bombay

Keynote Speeches II

Session Date	October 6 (Monday), 2025
Session Time	13:30 - 15:00
Session Room	International Conference Hall (3F)
Session Chair(s)	Kei Suwa

[KT-04] Keynote Talk IV 13:30-14:00

Synthetic Aperture Radar Processing For GPR

Prof. Motoyuki Sato, Tohoku Univerisity/ALISys Co., Ltd.

[KT-05] Keynote Talk V 14:00-14:30

The Current Status Of ALOS-4

Mr. Yukihiro Kankaku, Japan Aerospace Exploration Agency (JAXA)

[KT-06] Keynote Talk VI 14:30-15:00

Infrastructure For A Sustainable Future

Mr. Keizo Fujiwara, Synspective Inc.

[MoIc1] Spaceborne SAR Systems and Missions

Session Date	October 6 (Monday), 2025
Session Time	15:30 - 16:50
Session Room	International Conference Hall (3F)
Session Chair(s)	Chair: Irena Hajnsek Co-Chair: Ryo Natsuaki

[MoIc1_01] 15:30-15:50

(Invited) Tandem-X At Its 4D Mission Phase: Biosphere And Cryosphere Applications

I. Hajnsek [1,2] , L. Albrecht [1], S. Li [2], T. Busche [1], T. Kraus [1], M. Bachmann [1], B. Wessel [1], M. Lachaise [1] , A. Moreira [1], M. Zink [1], S. Buckreuss [1] ([1] German Aerospace Center (DLR), Germany, [2] ETH Zurich, Switzerland)

[MoIc1_02] 15:50-16:10

L-Band SAR DiskSat At Shallow vLEO

H. Saito [1], M. Kaneoka [2], R. Natsuaki [3] ([1] Nihon University, Japan, [2] CSP Japan, Japan, [3] The University of Tokyo, Japan)

[MoIc1_03] 16:10-16:30

On The Design Of A Novel StriX Small Satellite Exploiting A Passive Frequency Scanning Antenna To Image Wide Swaths At High Resolution

N. Onodera [1], G. Baier [1], M. Mariotti [1], B. Pyne [1], S. A. Chelariu [1], T. Obata [1], F. Bordoni [2], D. Thois [2], M. Younis [2], G. Krieger [2], A. Moreira [2] ([1] Synspective, Japan, [2] German Aerospace Center (DLR), Germany)

[MoIc1_04] 16:30-16:50

Multi-Source Feature Fusion Network For Cross-Domain SAR Ship Classification

J. He [1,2], S. Li [1], W. Chang [1], Y. Kong [2], G. Chen [1], Y. Liu [1]

([1] Xi'an University of Posts and Telecommunications, China, [2] Nanjing University of Aeronautics and Astronautics, China)

[MoMh1] SAR Interferometry

Session Date	October 6 (Monday), 2025
Session Time	15:30 - 16:50
Session Room	Multipurpose Hall (1F)
Session Chair(s)	Chair: Agustan Co-Chair: Yo Fukushima

[MoMh1_01] 15:30-15:50

(Invited) Mitigating Phase Jumps In InSAR Due To Large Earthquake Deformation

A. Agustan [1,2], T. Ito [2], A. Aditiya [2] ([1] Indonesian Society for Remote Sensing (MAPIN/ISRS), Indonesia, [2] Nagoya University

[MoMh1_02] 15:50-16:10

Near-field Height Estimation Using Averaging InSAR Datasets

Y. Abe [1], H. Yamada [1], K. Murota [2] ([1] Niigata University, Japan, [2] Nippon Steel Corporation, Japan)

[MoMh1_03]16:10-16:30

Tropospheric Noise Mitigation In InSAR Using Dense GNSS Network

Y. Fukushima [1] ([1] Tohoku University, Japan)

[MoMh1_04] 16:30-16:50

Developing Anomaly Detection Model For InSAR Time Series To Detect Slow Slip Events

R. Sakurai [1], Y. Kinoshita [1] ([1] University of Tsukuba, Japan)

[MoSh1] Machine Learning, Deep Learning, and Data Fusion

Session Date	October 6 (Monday), 2025
Session Time	15:30 - 16:50
Session Room	Small Hall (1F)
Session Chair(s)	Chair: Akira Hirose Co-Chair: Yilong Lu

[MoSh1_01] 15:30-15:50

(Invited) Explainable Neural Networks In The Era Of Many-Sensor/Multimodal Earth Observation

A. Hirose [1] ([1] The University of Tokyo, Japan)

[MoSh1_02] 15:50-16:10

Ship Detection With Bistatic Interferometric SAR And Complex-valued Convolutional Neural Networks

T. Miyashita [1], A. Hirose [1], R. Natsuaki [1] ([1] The University of Tokyo, Japan)

[MoSh1_03] 16:10-16:30

Optimizing SAR-to-Optical Translation: Evaluating Multi-task Versus Adversarial Training With Semantic Supervision

X. Fu [1], T. Kouyama [2], J. Hur [1,2], R. Nakamura [2], I. Yoshikawa [1] ([1] The University of Tokyo, Japan, [2] National Institute of Advance Industrial Science and Technology (AIST), Japan)

[MoSh1_04] 16:30-16:50

High-Resolution EO-SAR Bidirectional Translation With Cycle-Consistent Adversarial Networks

Y. Lu [1], J. Zhu [1], W. Yang [1], G. Ma [1], C. Xiao [1] ([1] EarthView Image Co., Ltd., China)

[TuMh1] PolSAR

Session Date	October 7 (Tuesday), 2025
Session Time	9:00 - 10:20
Session Room	Multipurpose Hall (1F)
Session Chair(s)	Chair: Avik Bhattacharya Co-Chair: Yoshio Yamaguchi

[TuMh1_01] 9:00-9:20

(Invited) Quad-pol Time-series PolSAR Data Utilization By Scattering Power Decomposition

Y. Yamaguchi [1,2], ([1] Niigata University, Japan, [2] National Institute of Advanced Industrial Science and Technology (AIST))

[TuMh1_02] 9:20-9:40

Quantum Bits And Polarimetric SAR: Qupolbit For Data Representation

A. Bhattacharya [1], A. Verma [1], M. Datcu [2] ([1] Indian Institute of Technology Bombay, India, [2] POLITEHNICA Bucharest, Romania

[TuMh1_03] 9:40-10:00

The General Compact Polarimetric Target Decomposition

J. Yin [1], J. Yang [2] ([1] University of Science and Technology Beijing, China, [2] Tsinghua University, China)

[TuMh1_04] 10:00-10:20

Polarimetric RFI Mapping Of PALSAR Observation In Hokkaido

Y. Hashimoto [1], R. Sugimoto [2], A. Hirose [1], R. Natsuaki [1] ([1] The University of Tokyo, Japan, [2] National Institute of Advanced Industrial Science and Technology (AIST), Japan)

[TuSh1] Next generation SAR Systems and Missions I

Session Date	October 7 (Tuesday), 2025
Session Time	9:00-10:20
Session Room	Small Hall (1F)
Session Chair(s)	Chair: Hyun-Ung Oh Co-Chair: Min-Ho Ka

[TuSh1_01] 9:00-9:20

(Invited) Very Low Earth Orbit Spaceborne Radar Mission Evaluation With Virtual Electromagnetic Wave Scattering Earth Surface

Min-Ho Ka [1] ([1] Yonsei Univerisity, Republic of Korea)

[TuSh1_02] 9:20-9:40

(Invited) Conceptual Design For VLEO Small SAR Satellite Of V-STEP

H.-U. Oh [1,2], T.-Y. Park [1], M.-H. Ka [3] ([1] STEP Lab. Ltd., Republic of Korea, [2] Korea Aerospace University, Republic of Korea, [3] Yonsei University, Republic of Korea)

[TuSh1_03] 9:40-10:00

Multi-mode SAR For The Surveillance Of Surface Vessels Over Vast Ocean Areas On Very Low Earth Orbit

J. Kim [1], A. Kononov [1], M.-H. Ka [1] ([1] Yonsei University, Republic of Korea)

[TuSh1_04] 10:00-10:20

Cost-Effective Deformation Monitoring Over Ultrawide Swaths Using Ambiguous Staggered SAR

M. Villano [1], N. Ustalli [1], V. F. de Almeida [2], P. Prats-Iraola [1] ([1] German Aerospace Center (DLR), Germany, [2] Aeronautics Institute of Technology (ITA), Brazil)

[TuIc1] Moving Target Detection and Indication

Session Date	October 7 (Tuesday), 2025
Session Time	9:00 - 10:20
Session Room	International Conference Hall (3F)
Session Chair(s)	Chair: Wenjie Shen Co-Chair: Yutaro Shigemitsu

[TuIc1_01] 9:00-9:20

Specific-velocity Moving Target Selection And Detection Method For High-temporal Spaceborne SAR

T. Jin [1], H. Shen [2], Y. Wang [1], W. Yang [1], H. Zeng [1], J. Chen [1] ([1] Beihang University, China, [2] Shanghai Institute of Satellite Engineering, China)

[TuIc1_02] 9:20-9:40

Feasibility Confirmation Of Using Spaceborne SAR For Flying Aeroplane Monitoring -- Case Of AMTIm Using Gaofen-3 Spotlight Data

W. Shen [1], Y. Wang [1], W. Hong [2], B. Han [2], A. Wang [3], L. Liu [4], H. Liu [4], Q. Zhang [4] ([1] North China University of Technology,China, [2] Chinese Academy of Sciences, China, [3] China Centre for Resources Satellite Data and Application China, [4] China Academy of Space Technology (CAST), China)

[TuIc1_03] 9:40-10:00

Robust Crane Pose Estimation Using High-resolution Drone SAR

H. Kim [1], S. Han [1], D. Lee [1], J. Song [1], H. Lee [1], S. An [1], D.-j. Kim [1], J. W. Kim [2], Y. B. Jeon [2], J. G. Kim [2], H. Kim [2], G. W. Ji [2] ([1] Seoul National University, Republic of Korea, [2] LIG Nex1, Republic of Korea)

[TuIc1_04] 10:00-10:20

Comparative Study On Correction Of Residual Error In MIMO-ISAR

H. Tsuchiya [1], H. Yamada [1], H. Kamo [2] ([1] Niigata University, Japan, [2] TAIYO YUDEN CO., LTD., Japan)

[TuMh2] Urban infrastructure

Session Date	October 7 (Tuesday), 2025
Session Time	10:50-11:50
Session Room	Multipurpose Hall (1F)
Session Chair(s)	Chair: Josaphat Tetuko Sri Sumantyo Co-Chair: Shinpei Nakano

[TuMh2_01] 10:50-11:10

(Invited) Multi-scale PSInSAR Application On Deformation Monitoring Of Coastal Infrastructure

Y. Tai [1], F. Tsai [1,2] ([1] Center for Space and Remote Sensing Research, Taiwan, [2] National Central University, Taiwan)

[TuMh2_02] 11:10-11:30

(Invited) Analysis Of Coastal Sedimentation At The Coastal Line Of Jakarta Using PS-InSAR

J. T. S. Sumantyo [1] ([1] Chiba University, Japan)

[TuMh2_03] 11:30-11:50

Application Of Tomo-PSInSAR On Large-scale Structural Health Monitoring And Urban Planning

Y. N. Lin [1], Y.-C. Chen [1,2], T.-A. Teo [3], C.-Y. Chen [1],T.-Y. Shih [3], H. Tung [1] ([1] Academia Sinica, Taiwan, [2] Viridien Satellite Mapping, United Kingdom, [3] National Yang Ming Chiao Tung University, Taiwan)

[TuSh2] Image Filtering, Correction, and Enhancement

Session Date	October 7 (Tuesday), 2025
Session Time	10:50-11:50
Session Room	Small Hall (1F)
Session Chair(s)	Chair: Shungo Tonoyama Co-Chair: Frédéric Brigui

[TuSh2_01] 10:50-11:10

Kalman Filtering For Improved Focus In Drone-based SAR Imaging

S. Nadaf [1], P. Vasudev [1], D. Chawda [1], R. Rajaraman [2,3], S. K. Patra [2,3] ([1] GalaxEye Space Solution Pvt. Ltd, India, [2] Indian Space Research Organization (ISRO), India, [3] Defence Research and Development Organisation (DRDO), India)

[TuSh2_02] 11:10-11:30

Impact Of Atmospheric Corrections At Mount Fuji

S.Tonoyama [1] ([1] RIKEN, Japan)

[TuSh2_03] 11:30-11:50

Man-made Target Extraction Method In BiSAR Images Based On Target Scattering And Frequency Perception

Y. Song [1], W. Pu [1], Z. Zhang [1], J. Wu [1], Z. Li [1], J. Yang [1] ([1] University of Electronic Science and Technology of China, China)

[TuIc2] Digital Elevation Modeling

Session Date	October 7 (Tuesday), 2025
Session Time	10:50-11:50
Session Room	International Conference Hall (3F)
Session Chair(s)	Chair: Yu Morishita Co-Chair: Sandro Groth

[TuIc2_01] 10:50-11:10

Multi-aspect SAR 3-D Reconstruction Based On Prominent Point Matching

W. Ao [1], J. Huo [1], Z. Li [1], J. Wu [1], J. Yang [1] ([1] University of Electronic Science and Technology of China, China)

[TuIc2_02] 11:10-11:30

InSAR-based DEM Error Estimation Using ALOS-2 Data With Long Perpendicular Baseline

Y. Shigemitsu [1], K. Yanagiya [1], M. Ohki [1], T. Tadono [1] ([1] Japan Aerospace Exploration Agency (JAXA), Japan)

[TuIc2_03] 11:30-11:50

InSAR And Height Change Measurement Using StriX Data

Y. Morishita [1] ([1] Synspective Inc., Japan)

[WeMh1] Next generation SAR Systems and Missions II

Session Date	October 8 (Wednesday), 2025
Session Time	9:00 - 10:20
Session Room	Multipurpose Hall (1F)
Session Chair(s)	Chair: Hyun-Ung Oh Co-Chair: Min-Ho Ka

[WeMh1_01] 9:00-9:20

(Invited) Spaceborne SAR Technology For Defense Application

J.-P. Kim [1], Y. Lee [1], H.-S. Shin [1] ([1] LIG Nex1, Republic of Korea)

[WeMh1_02] 9:20-9:40

On Determination Of Synthetic Aperture Time For Earth-observation Moon-based SAR

Z. Xu [1], J. Chen [1], K.-S. Chen [2] ([1] Hohai University, China, [2] Nanjing University, China)

[WeMh1_03] 9:40-10:00

A Conceptual Study Of Bistatic Satellite SAR System For 3-D Displacement Measurement Of Infrastructure

A. Uematsu [1], R. Tamura [1], M. Harada [1], T. Nishibori [1], S. Ozawa [1], K. Sugawara [1], D. Tate [1] ([1] Japan Aerospace Exploration Agency (JAXA), Japan)

[WeMh1_04] 10:00-10:20

Evaluation Of Multi-temporal NISAR Simulated Data For Forest Biomass Estimation

U. Khati [1], C. Leena [1], A. Sabir [1], S. Kumar [2], A. Das [2] ([1] Indian Institutes of Technology (IIT) Indore, India, [2] Indian Space Research Organisation (ISRO), India)

[WeSh1] BSPA Session I

Session Date	October 8 (Wednesday), 2025
Session Time	9:00-10:20
Session Room	Small Hall (1F)
Session Chair(s)	Chair: Toshifumi Moriyama Co-Chair: Wen Liu

[WeSh1_01] 9:00-9:20

Enhancing Man-made Structure Extraction Using PolSAR Data

Y. Siriprathan [1], J. Susaki [1], Y. Ishii [1], T. Oba [1] ([1] Kyoto University, Japan)

[WeSh1_02] 9:20-9:40

Application Of Error Reduction Method Using Noise2Noise Deep Learning In Interferometric SAR Analysis

T. Kitazawa [1], T. Nagata [2], K. Ishitsuka [1], Y. Shigemitsu [2], W. Lin [1] ([1] Kyoto University, Japan, [2] Japan Aerospace Exploration Agency (JAXA))

[WeSh1_03] 9:40-10:00

Multibaseline InSAR Height Estimation Using Small SAR Satellites

L. H. Oguchi [1], S. Fujimaru [2], Y. Morishita [2], M. M. d'Alessandro [2], G. Baier [2], A. Hirose [1], R. Natsuaki [1] ([1] The University of Tokyo, Japan, [2] Synspective Inc., Japan)

[WeSh1_04] 10:00-10:20

Assessment On Track Combinations For Urban Flood Detection Using SAR Mulit-spatiotemporal Interferometric Coherence

W. Cao [1], A. Hirose [1], R. Natsuaki [1] ([1] The University of Tokyo, Japan)

[Welc1] Imaging Technique

Session Date	October 8 (Wednesday), 2025
Session Time	9:00 - 10:20
Session Room	International Conference Hall (3F)
Session Chair(s)	Chair: Naoya Nomura Co-Chair: Ryu Sugimoto

[Welc1_01] 9:00-9:20

Comparison Of PN-sequence Multiplied FM-chirp Signals

R. Suzuki [1], A. Hirose [1], R. Natsuaki [1] ([1] The University of Tokyo, Japan)

[Welc1_02] 9:20-9:40

The Study Of GPU-based Parallelization For SAR Imaging With MIMO-RMA

N. Nomura [1], T. Nakamura [1], M. Gocho [1], T. Kitamura [1], N. Oishi [1] ([1] Mitsubishi Electric Corporation, Japan)

[Welc1_03] 9:40-10:00

Resolution Enhancement For Multi-channel Radar Forward-looking Imaging Via Multi-kernel Supperresolution Deconvolution Framework

L. Ren [1] , H. Wei [2], D. Wu [1], S. Wang [2], D. Zhu [1] ([1] Nanjing University of Aeronautics and Astronautics, China, [2] Shanghai Radio Equipment Research Institute, China)

[Welc1_04] 10:00-10:20

Wave Spectrum Inversion Method Based On Circular Scattering Synthetic Aperture Radar

X. Yao [1], X. Wang [1], J. Xie [1], D. Yue [2], W. Zhang [1] ([1] Dalian Maritime University, China, [2] Fuyao University of Science and Technology, China)

[WeMh2] ALOS series I

Session Date	October 8 (Wednesday), 2025
Session Time	10:50-11:50
Session Room	Multipurpose Hall (1F)
Session Chair(s)	Chair: Masato Ohki Co-Chair: Kauzki Yanagiya

[WeMh2_01] 10:50-11:10

PALSAR-3 Mission Initial Check-out And Cal/Val Results

M. Shibata [1], S. Ota [1], S. Kondo [1], M. Yajima [1], S. Nakamura [1], K. Ito [2], T. Motohka [2], Y. Kankaku [2] ([1] Mitsubishi Electric, Japan, [2] Japan Aerospace Exploration Agency (JAXA), Japan)

[WeMh2_02] 11:10-11:30

The Performance Result of ALOS-4 SAR Experimental Modes

S. Ota [1], M. Shibata [1], S. Kondo [1], M. Yajima [1], S. Nakamura [1], K. Ito [2], T. Motohka [2], Y. Kankaku [2] ([1] Mitsubishi Electric Corporation, Japan, [2] Japan Aerospace Exploration Agency (JAXA), Japan

[WeMh2_03] 11:30-11:50

Near Real-time Cropland Monitoring Using Full-polarimetric L-band SAR For Enhance LULC Mapping

S. Kanai [1], P. Tantianuparp [2], S. Hirayama [3], T. Tadono [3], K. Imamura [4], N. Hirade [4], F. Ohgushi [4], R. Satake [4], K. (N.) Nasahara [5] ([1] Kyoto University, Japan, [2] Hydro – Informatics Institute,Thailand, [3] Japan Aerospace Exploration Agency (JAXA), Japan, [4] Remote Sensing Technology Center of Japan, Japan, [5] University of Tsukuba, Japan)

[WeSh2] BSPA Session II

Session Date	October 8 (Wednesday), 2025
Session Time	10:50-11:50
Session Room	Small Hall (1F)
Session Chair(s)	Chair: Toshifumi Moriyama Co-Chair: Wen Liu

[WeSh2_01] 10:50-11:10

mmWave SAR-based Road Debris Detection With Adaptive Fusion Of Stereo Camera Data

H. Lee [1], D.-j. Kim [1] ([1] Seoul National University, Republic of Korea)

[WeSh2_02] 11:10-11:30

Motion Compensation In Time-domain Back-projection For Drone-Borne SAR

D. B Putra [1], Y. Izumi [1], R. Ishigaki [1], F. Nurzaman [1], J. Widodo [2], S. Kawamura [1] ([1] Muroran Institute of Technology, Japan, [2] National Research and Innovation Agency of Indonesia, Indonesia)

[WeSh2_03] 11:30-11:50

Two-Dimensional Efficient Accumulation Method For Kelvin Wake And Ship Velocity Estimation Algorithm Of Marine Targets In SAR Images

Z. Jiang [1], H. Wang [1], Y. Hai [1], Z. Shao [1], Z. Li [1] ([1] University Of Electronic Science And Technology Of China, China)

[Welc2] Ice, Snow, and Glacier

Session Date	October 8 (Wednesday), 2025
Session Time	10:50-11:50
Session Room	International Conference Hall (3F)
Session Chair(s)	Chair: Kenshiro Arie Co-Chair: Hiroto Nagai

[Welc2_01] 10:50-11:10

The Detection Of Long-term Changes In The Glacial Firn Line Using L-band SAR

K. Arie [1], T. Tadono [1] ([1] Japan Aerospace Exploration Agency (JAXA), Japan)

[Welc2_02] 11:10-11:30

Development Of Snow Depth Estimation Method Using ASNARO-2 X-band SAR Data

N. Omori [1], R. Furuta [1], R. Inaba [1], R. Tanahashi [1], T. Tanamachi [2], K. Ichihara [2], N. Jumonji [2] ([1] Remote Sensing Technology Center of Japan (RESTEC), Japan, [2] Japan EO-Satellite Service, Ltd. (JEOSS), Japan)

[Welc2_03] 11:30-11:50

Radar Signatures Of Snow-covered Sea Ice

Y. Yang [1], K.-S. Chen [1] ([1] Nanjing University, China)

[WeMh3] ALOS series II

Session Date	October 8 (Wednesday), 2025
Session Time	15:30-16:50
Session Room	Multipurpose Hall (1F)
Session Chair(s)	Chair: Masato Ohki Co-Chair: Kauzki Yanagiya

[WeMh3_01] 15:30-15:50

Development Of Analysis Ready Data And Application Examples Of JAXA's L-band SAR Observations Over 30 Years

T. Tadono [1], A. Rosenqvist [2], O. Isoguchi [3], K. Kobayashi [3] ([1] Japan Aerospace Exploration Agency (JAXA), Japan, [2] solo Earth Observation, Japan, [3] Remote Sensing Technology Center of Japan (RESTEC), Japan)

[WeMh3_02] 15:50-16:10

Validation Of ALOS-4 Interferometry And ALOS-2/4 Multi-platform Interferometry

K. Yanagiya [1], Y. Shigemitsu [1], K. Ito [1], T. Mothoka [1], M. Ohki [1], T. Tadono [1] ([1] Japan Aerospace Exploration Agency (JAXA), Japan)

[WeMh3_03] 16:10-16:30

Operational Algorithm For Earthquake-damaged Building Detection Using ALOS-2

M. Ohki [1], S. Kawakita [1], T. Motoki [1], O. Isoguchi [2], H. Hirano [2], T. Tadono [1] ([1] Japan Aerospace Exploration Agency (JAXA), Japan, [2] Remote Sensing Technology Center (RESTEC), Japan)

[WeMh3_04] 16:30-16-50

ALOS-2/-4 Operational Deforestation Detection And Early Warning - Japan's L-band SAR Contribution To Global Forest Sustainability

C. Koyama [1], M. Shimada [2], Y. Kankaku [1], K. Kobayashi [3], R. Souza [4], M. Ohki [1], T. Tadono [1] ([1] Japan Aerospace Exploration Agency (JAXA), Japan, [2] Tokyo Denki University, Japan, [3] Remote Sensing Technology Center (RESTEC), Japan, [4] IBAMA, Brazil)

[WeSh3] Geohazard I

Session Date	October 8 (Wednesday), 2025
Session Time	15:30-16:50
Session Room	Small Hall (1F)
Session Chair(s)	Chair: Tomokazu Kobayashi Co-Chair: Seiya Usami

[WeSh3_01] 15:30-15:50

Multi-Mechanism Deformation Patterns In A Subsiding Coastal Region Through InSAR Time-Series Decomposition

S.-H. Lin [1,2], J.-C. Hu [1], W.-C. Hung [2,3] ([1] National Taiwan University, Taiwan, [2] Green Environmental Engineering Consultant Co. LTD, Taiwan, [3] National Yang Ming Chiao Tung University, Taiwan)

[WeSh3_02] 15:50-16:10

Steady Coupling Along The Nankai Subduction Zone And Median Tectonic Line (MTL) Estimated From GNSS And InSAR Observation

K. Shimotsuma [1,2], Y. Kinoshita[1] , S. Yabe [2], T. Ochi [2] ([1] University of Tsukuba, Japan, [2] Geological Survey of Japan, Japan)

[WeSh3_03] 16:10-16:30

A Sequential Polarimetric Phase Optimization For PS/DS Interferometry Of Dual-pol Sentinel-1 Data

Y. Wang [1], J. Luo [1], L. We [1], M. Ao [1] ([1] Northeastern University, China)

[WeSh3_04] 16:30-16:50

L-band-based InSAR with Long Temporal Baseline for Detection of Medium- to Long-term Volcanic Deformation

T. Kobayashi [1], H. Munekane [1] ([1] Geospatial Information Authority of Japan (GSI), Japan)

[Welc3] UAV, Ground-based, and Subsurface Sensing

Session Date	October 8 (Wednesday), 2025
Session Time	15:30-16:50
Session Room	International Conference Hall (3F)
Session Chair(s)	Chair: Yuta Izumi Co-Chair: Shouhei Kidera

[Welc3_01] 15:30-15:50

Anomaly Detection of Pavement and Rebar States for Ground Penetrating Radar Road Inspection

S. Kidera [1], N. Akiyama [1] ([1] University of Electro-Communications, Japan)

[Welc3_02] 15:50-16:10

Polarization Data Availability on Repositioning Error Compensation for Natural Objects

K. Urano [1], Y. Izumi [1], F. Nurzaman [1], S. Kawamura [1], M. Sato [2] ([1] Muroran Institute of Technology, Japan, [2] Tohoku University, Japan)

[Welc3_03] 16:10-16:30

Discontinuous Retaining Wall Displacement Monitoring Using W-band MIMO Radar

S. Sartika [1], Y. Izumi [1], T. Ito [1], F.Nurzaman [1], M. Dong [1], K. Ota [1], J. Widodo [2], M. Tsuruga [3], N. Hamabe [3] ([1] Muroran Institute of Technology, Japan, [2] National Research and Innovation Agency of Indonesia (BRIN) Indonesia, [3] A-Tic Co., LTD, Japan)

[Welc3_04] 16:30-16-50

Feasibility Study on Target Vibration Retrieval Via Drone-borne MIMO Radar Interferometry

Y. Izumi [1], M. Komuro [1], T. Kawarai [1],T. Ito [1], K. Yoshimori [1] ([1] Muroran Institute of Technology, Japan)

[ThMh1] Imaging Simulation

Session Date	October 9 (Thursday), 2025
Session Time	9:00 - 10:20
Session Room	Multipurpose Hall (1F)
Session Chair(s)	Chair: Hiroshi Yokoya Co-Chair: Cheng-Yen Chiang

[ThMh1_01] 9:00-9:20

Coherent Effects Of Antenna Pattern In SAR Echo Simulation

C.-Y. Chiang [1], K.-S. Chen [2], C.-S. Ku [1], W.-Y. Chang [3] ([1] National Taipei University of Technology, Taiwan, [2] Nanjing University, [3] National Dong Hwa University, Taiwan)

[ThMh1_02] 9:20-9:40

Training AI Models For SAR-based City Change Detection Using Simulated SAR Images

H. Yokoya [1], S. Yasui [1], K. Motomura [1], F. Ogushi [2], N. Kanemoto [1] ([1] Space Shift Inc., Japan, [2] NV5 Geospatial Solutions K.K., Japan)

[ThMh1_03] 9:40-10:00

SAR Raw Data Simulation Of Moving Ships Using Spatial Reflectivity Distribution

Y. Jung [1], J. Kim [1], J. Jang [1], M.-H. Ka [1] ([1] Yonsei University, Republic of Korea)

[ThMh1_04] 10:00-10:20

Mapping of PS Point Distribution Using a SAR Image Simulator with 3D Building Data

N. Iwaki [1], J. Susaki [1], Y. Ishii [1], T. Oba [1] ([1] Kyoto University, Japan)

[ThSh1] Geohazard II

Session Date	October 9 (Thursday), 2025
Session Time	9:00-10:20
Session Room	Small Hall (1F)
Session Chair(s)	Chair: Tomokazu Kobayashi Co-Chair: Seiya Usami

[ThSh1_01] 9:00-9:20

Accuracy Validation Of Spatial Long-Wavelength Correction Using A Low-Pass Filter In DInSAR Active Landslide Detection

S. Usami [1,2], T. Tadono [2,3], S. Ishimaru [1], ([1] Hokkaido Research Organization, Japan, [2] Hokkaido University, Japan, [3] Japan Aerospace Exploration Agency (JAXA))

[ThSh1_02] 9:20-9:40

Advanced Slope Susceptibility Monitoring In Taiwan's Mountain Roads: A Multi-temporal LiDAR And InSAR Approach

R.-F. Chen [1], H.-Y. Hsiao [1], C.-Y. Chi [2], C.-S. Chang [2], C.-H. Wang [3] ([1] National Taipei University of Technology, Taiwan, [2] CECI Engineering Consultants, Inc., Taiwan, [3] Ministry of Transportation and Communications (MOTC), Taiwan)

[ThSh1_03] 9:40-10:00

Recent Unrest Of The Changbaishan Tianchi Volcano Revealed By ALOS-2 And Seismic Monitoring Data

L. Wei [1], X. Pan [1], Y. Sun [2], G. Liu [3], M. Ao [1] , S. Liu [1], Y. Wang [1], J. Luo [1] ([1] Northeastern University, China, [2] RONGTONG Human Resources Development Co., Ltd., China, [3] Jilin Earthquake Agency, China)

[ThSh1_04] 10:00-10:20

InSAR Reveals Limited Summer Subsidence Two Decades After Wildfires Under The 2023 Heat Anomaly In North Yukon

Z. Cao [1], M. Furuya [1] ([1] Hokkaido University, Japan)

[ThIc1] SAR System Design: Antennas, Calibration, and Emerging Technologies

Session Date	October 9 (Thursday), 2025
Session Time	9:00 - 10:00
Session Room	International Conference Hall (3F)
Session Chair(s)	Chair: Mika Viljam Kontto Co-Chair: Michelangelo Villano

[ThIc1_01] 9:00-9:20

Modulation and Demodulation Techniques for Establishing Satellite IoT Uplink Backscatter Communications Utilizing Synthetic Aperture Radar Signals

Y. Shintani [1], Y. Moroi [1], T. Ubukata[1] , R. Natsuaki [1], H. Morikawa [1], Y. Narusue [1] ([1] The University of Tokyo, Japan)

[ThIc1_02] 9:20-9:40

Calibration Method for Millimeter-Wave FM-CW MIMO Radar Considering Reference Target Position Error

K. Nozawa [1] , H. Yamada [1] , H. Kamo [2] ([1] Niigata University, Japan, [2] TAIYO YUDEN CO., LTD., Japan)

[ThIc1_03] 9:40-10:00

Automatic Quality Control of SAR Images at Synspective

M. Kontto [1], M. M. D'Alessandro [1], G. Baier [1], K. Orzel [1], S. Yoshimoto [1], T. Imaizumi [1] ([1] Synspective, Japan)

Closing Ceremony

Session Date	October 9 (Thursday), 2025
Session Time	10:30-11:05
Session Room	International Conference Hall (3F)
Session Chair(s)	Takashi Shibayama

10:30-10:31

Opening Address

10:31-10:36

Opening Remarks by APSAR 2025 General Chair: Junichi Susaki

10:36-10:44

Highlights of APSAR 2025 (Video)

10:44-10:54

Awards Presentation

10:54-11:04

Announcement of Next APSAR 2027

11:04-11:05

Closing Address

[WeLe] Poster Session

Session Date	October 8 (Wednesday), 2025
Session Time	13:20-15:20
Session Room	Large Exhibition Hall
Session Chair(s)	Yasumichi Yone

[WeLe_P01]

Revisiting Rapid Tectonic Deformations In Southwestern Taiwan Using GNSS And ALOS InSAR Data: Case Study In Chungliao Tunnel

I-T. Wang [1,2,3], K.-E. Ching [2], E. Pathier [3], R. Y. Chuang [1] ([1] National Taiwan University, Taiwan, [2] National Cheng Kung University, [3] Univ. Grenoble Alpes, Univ. Savoie Mont Blanc, CNRS, IRD, Univ. Gustave Eiffel, ISTerre, France

[WeLe_P02]

Almost Decade-long Temporal Baseline InSAR For Detecting Slow And Continuous Deformation

Y. Himematsu [1], H. Munekane [1], T. Kobayashi [1]([1] Geospatial Information Authority of Japan (GSI), Japan)

[WeLe_P03]

Detection Of Coseismic Landslides From SAR Intensity Image Using Particle Image Velocity: Case Study Of The 2024 Noto Earthquake, Japan

R. Endo [1], K. Yoshida [1], A. Sasagawa [1] ([1] Geospatial Information Authority of Japan (GSI), Japan)

[WeLe_P04]

Landslide Monitoring With InSAR For Cost-effectiveness -A Case Study Of Odokoro Landslides -

R. Hirata [1], Y. Matsumoto [1], H. Kinoshita [1] ([1]OYO corporation, Japan)

[WeLe_P05]

Monitoring And Detection Of Slope Instability: Integration Of MT-InSAR And LiDAR For Landslide Analysisl In Hongye Village

S.-Y. Au [1], R.-F. Chen [1], G.-W. Lin [2], C.-Y. Kuo [3], C.-Y. Chen [4], E.-J. Lin [4] ([1] National Taipei University of Technology, Taiwan, [2] National Cheng Kung University,Taiwan, [3] Academia Sinica, Taiwan, [4] Ministry of Agriculture (MOA), Taiwan)

[WeLe_P06]

An Integrated InSAR Framework For Short-term Soil Deformation: Improving Slope Failure Estimation

C. Li [1], J. X. Tan [1,2], Y. Yokota [1], K. Date [1], T. Shuku [3] ([1] Kajima Corporation, Japan, [2] Singapore Institute of Technology, Singapore, [3] Tokyo City University, Japan)

[WeLe_P07]

Satellite InSAR Simulation Of The Liquefaction-stricken Area Caused By The 2024 Noto Peninsula Earthquake, Japan

M. Matsuoka [1], F. Ogushi [2] ([1] Institute of Science Tokyo, Japan, [2] Terra Phase, Inc., Japan)

[WeLe_P08]

Creep Rate Changes Of Shallow Active Faults In Southwestern Taiwan: Insights From InSAR And GNSS Analysis

L. Chen [1], R. Y. Chuang [2], T. Sagiya [1] ([1] Nagoya University, Japan, [2] National Taiwan University Taiwan)

[WeLe_P09]

Supervised Learning-based Thresholds Optimization For Landslide Detection Using SAR Satellite

H. Naruke [1], S. Kanae [1], O. Sasaki [1], A. B. Declaro [1] ([1] Institute of Science Tokyo, Japan)

[WeLe_P10]

Session Chair(s) Masanobu Shibata

[WeLe_P11]

Crustal Deformation And Damage Mapping Of The 2025 Tibet Earthquake Based On ALOS-2 Data

F. Yamazaki [1], W. Liu [2], Y. Guo [1] ([1] Ohsaki Research Institute, Inc., Japan, [2] Chiba University, Japan)

[WeLe_P12]

Analysis Of The Relation Among Rainfall, Inclination And Land Displacement Around Roads

Y. Ishii [1] , J. Susaki [1] , A. Kurihara [1] , T. Oba [1] , K. Yamaguchi [1] , Y. Miyazaki [2] , K. Kishida [1] ([1] Kyoto University, Japan, [2] Kansai University, Japan)

[WeLe_P13]

Integrating 3D Electrical Resistivity Tomography And InSAR Surface Deformation Analysis To Decipher Subsurface-surface Interactions In Mud Volcano Systems Of Southwestern Taiwan

T.-T. Chen [1] , C.-X. Peng [1], R.-F. Chen [1], T.-L. Lin [2], K.-J. Chang [1], W.-C. Chen [3], J.-J. Yen [3] ([1] National Taipei University of Technology, Taiwan, [2] National Cheng-Kung University, Taiwan, [3] CECI Engineering Consultants, Inc., Taiwan)

[WeLe_P14]

[WeLe_P15]

Ground Subsidence Monitoring For Coastal Area Of Osaka Bay Using Time-series Interferometric PALSAR-2

H. Mesuda[1], M. Shimada[1] ([1] Tokyo Denki University, Japan)

[WeLe_P16]

Validation Of ALOS-4/PALSAR-3 Data For Nonitoring Ground Deformation

Y. Himematsu [1], T. Kobayashi [1], A. Hattori [1], M. Nakashima [1], H. Ueshiba [1], M. Tanaka [1], M. Ichimura [1], M. Ishimoto [1] ([1] Geospatial Information Authority of Japan (GSI), Japan)

[WeLe_P17]

Effect Of Sensor- And Field-based Parameters On Deforestation Mapping With Time-series C-band And L-band SAR Data

A. Sabir [1], U. Khati [1], ([1] Indian Institute of Technology Indore, India)

[WeLe_P18]

ALOS-2 Operation Status And Public Private Partnership

S. Sobue [1] ([1] Japan Aerospace Exploration Agency (JAXA), Japan)

[WeLe_P19]

Updating Subsidence Across Borneo Restored Peatland Area Using L-band InSAR

Q. Zahro [1], Y. Izumi [1], D. A. Novresiandi [2], D. Cahyana [2] , J. Widodo [2], D. Ito[1], K. Ota [1], M. Dong[1] ([1] Muroran Institute of Technology, Japan, [2] Badan Riset dan Inovasi Nasional, Indonesia)

[WeLe_P20]

Characteristics Of Forest Products Using Satellite Data And Analysis Of Forest Changes In Hokkaido

K. Kitagawa [1], S. Mihara [1], R. Uematsu [1] , T. Nonaka [1] , T. Asaka [1] ([1] Nihon University, Japan)

Session Chair(s) Hideomi Gokon

[WeLe_P21]

Understanding AWD Using Small SAR Satellites In Cambodia

T. Hirose [1], A. Kimura [1], K. Ida [1], A. Koga [1], Y. Tsuchiya [1], R. Kawashima [1] ([1] Pasco Corporation, Japan)

[WeLe_P22]

Dual Polarimetric Decomposition For Wheat Monitoring Using C-band SAR Data

S. Jain [1], U. Khati [1], V. Kumar [2], A. Bhattacharya [3] ([1] Indian Institute of Technology (IIT) Indore, India, [2] IHE Delft Institute for Water Education, The Netherlands, [3] Indian Institute of Technology (IIT) Bombay)

[WeLe_P23]

Accuracy Assessment Of Satellite-based Downscaling Soil Moisture Production In Ghana

T. Sakai [1], N. Oka [1], W. S. Maung [1], P. Kpoebaya [2], A. L. Abdulai [3], T. Iizumi [4], Y. Masaki [4], K. Oyoshi [5] ([1] Japan International Research Center for Agricultural Sciences (JIRCAS), Japan, [2] University for Development Studies (UDS), Ghana, [3] Savanna Agricultural Research Institute (SARI), Ghana, [4] National Agriculture and Food Research Organization (NARO), Japan, [5] Japan Aerospace Exploration Agency (JAXA), Japan)

[WeLe_P24]

Spatiotemporal Multi-level Attention-based Sugarcane Identification Using Time-series SAR Imagery

H. Li [1], Z. Wang [1], L. Sun [1], L. Zhao [1], J. Wang [1], X. Li [1], P. Chen [1], Y. Han [1], J. Chen [1] ([1] Chinese Academy of Sciences, China)

[WeLe_P25]

Understanding The Usage Status Of Agricultural Fields Using Time-Series Sentinel-1 Images And Field Polygon Data

M. Haga [1], R. Suzuki [1], M. Yamashita [1] ([1] Tokyo University of Agriculture and Technology, Japan)

[WeLe_P26]

Evaluation Of Weed Variations In Paddy Rice Fields Using ALOS-2 PALSAR-2 Full Polarimetric Data Analysis

C. Yonezawa [1], A. Fukada [1], K. Homma [1], Y. Barajima [1] (1 Tohoku University, Japan)

[WeLe_P27]

Examination Of Coastal Ecological Alteration Surrounding Cisadane River Estuary, Tangerang, Indonesia

P. M. Afgatiani [1, 2], A. G. Suhadha [2,3], U. J. Wisha [1,2], B. Vallianto [2, 4] ([1] University of the Ryukyus, Japan, [2] National Research and Innovation Agency,Indonesia, [3] Tohoku University, Japan, 4 Yamaguchi University)

[WeLe_P28]

[WeLe_P29]

Multi-Source InSAR-based Deformation Reveals Accelerated Permafrost Degradation In The Qilian Mountains Of The Qinghai-Tibet Plateau

T. Chang[1] ([1] Tongji University, China)

[WeLe_P30]

Session Chair(s) Ryoichi Furuta

[WeLe_P31]

Evaluation Of Regional And Vegetation-dependent Differences In SAR-based Snow Depth Estimation: Accuracy And Improvement Method

H. Nagai [1], Y. Iijima [2], T. Abe [3] ([1] Rissho University, Japan, [2] Tokyo Metropolitan University, Japan, [3] Mie University, Japan)

[WeLe_P32]

Flood Mapping Using SAR Images And Building Location Data

Y. Katayama [1], T. Oshima [1] ([1] Mitsubishi Electric, Japan)

[WeLe_P33]

Integration Of Local And Global Structural Information For Building Damage Assessment In Tsunami-affected Areas Using SAR Intensity Imagery

S. Nakano [1], H. Gokon [1] ([1]Axelspace Corporation, Japan, [2] Japan Advanced Institute of Science and Technology (JAIST), Japan)

[WeLe_P34]

[WeLe_P35]

Using Multi-source DEM Super-resolution For Improved Inundation Depth Estimation

S. Groth [1], I. K. D. L. S. Jose [2], M. Wieland [1], Y. Zhu [3,4], C. Geiß [1], B. Adriano [2], S. Martinis [1] ([1] German Aerospace Center (DLR), Germany, [2] Tohoku University, Japan, [3] ETH Z¨urich, Switzerland, [4] Singapore-ETH Centre, Singapore)

[WeLe_P36]

Examination Of Change Detection In Urban Area Using PolSAR By Changing The Basis

J. Lee [1], J. Susaki [1], Y. Ishii [1], T. Oba [1] ([1] Kyoto University, Japan)

[WeLe_P37]

Displacement Analysis Of Road-reinforced Slopes Via Consecutive DInSAR And 2.5D Analysis

T. Asaka [1], T. Nonaka [1] ([1] Nihon University, Japan)

[WeLe_P38]

A Classification Method For Space-borne SAR Port Functional Areas Based On ResNet Model

Y. Pan [1], H. Shen [2], Y. Zhang [3], H. Zeng [1], H. Wang [1], W. Yang [1], C. Li [1], J. Chen [1]
([1] Beihang University, China, [2] Shanghai Institute of Satellite Engineering, China, [3] Mianyang Tianyi Space Technology Co., Ltd., China)

[WeLe_P39]

Detecting Deformation Of Artificial Embankment Using InSAR Time Series Analysis Of Sentinel-1 Data, Example Of Kawasaki City, Kanagawa Prefecture, Japan

R. Doke [1], T. Narumi [2], M. Satomura [3], S. Ueda [3], T. Hara [4] ([1] Hirosaki University, Japan, [2] Shimizu Corporation, Japan, [3] Nippo Co. Ltd., Japan, [4] Kawasaki City Urban Improvement Bureau, Japan)

[WeLe_P40]

Application Of Persistent Scatter - Interferometric Synthetic Aperture Radar (PSInSAR) In Detecting Ground Motion Due To The Phase 1 Of The Metro Manila Subway Project

O. S. Locaba [1], J. Refran [1], R. Reyes [1] ([1] Philippine Space Agency, Philippines)

Session Chair(s) Ryoichi Sato

[WeLe_P41]

Estimation Of Building Damage From The 2024 Noto Peninsula Earthquake By Combination Of Multi-wavelength SAR

T. Taguchi [1], K. Honda [1], N. Asada [1], N. Mushiake [1], Y. Imai [1], T. Nishimura [1], S. Mukoyama [1] ([1] Kokusai Kogyo Co., Ltd., Japan)

[WeLe_P42]

GNSS Positioning Environment Mapping For Autonomous Boats Using ALOS-2/PALSAR-2 Data

M. Nakagawa [1], K. Noda [1], T. Yamaguchi [1], T. Nagaoka [1], N. Kubo [2], E. Shimizu [2] ([1] Shibaura Institute of Technology, Japan, [2] Tokyo University of Marine Science and Technology, Japan)

[WeLe_P43]

[WeLe_P44]

Illegal Dumping Monitoring System Using Sentinel-1 Data And Anomaly Detection

E. Matsui [1,2,3], Y. Nagai [1,2,3], T. Hata [1,2,3], B. Carcellar [1,2,3], K. Vaibhav [1,2,3], T. Tsurumi [1,2,3], Y. Hayashi [1,2,3] ([1] New Space Intelligence.Inc, Japan, [2] EVERYPLAN Co., Ltd., Japan, [3] Trust Software Co. Japan)

[WeLe_P45]

[WeLe_P46]

Modified PCA For Low Altitude Drone-based Stripmap SAR

P. Vasudev [1], A. Sharma [1], S. Nadaf [1], D. Chawda [1], R. Rajaraman [2], S. K. Patra [2, 3] ([1] GalaxEye Space Solution Pvt. Ltd., India, [2] Indian Space Research Organization, India, [3] Defence Research & Development Organization (ORDO), India)

[WeLe_P47]

Drone-based Reconfigurable Active-phased-array Multi-mode SAR: Preliminary Results

C. Wang [1,2,3], Y. Luo [2,3], Y. Tang [1,2,3], Y. Zhao [2], J. Ning [1,2, 3], P. Yu, [1,2,3], S. Guan [1,2,3] ([1] International Research Center of Big Data for Sustainable Development Goals, China, [2] Chinese Academy of Sciences, China, [3] University of Chinese Academy of Sciences, China)

[WeLe_P48]

A Stepwise-regression-based Finite Mixture Model For The Statistical Distribution Characteristics Of Multi-Aspect SAR

R. Zhu [1,2], F.Teng [1], W. Hong [1] ([1] Chinese Academy of Sciences, China, [2] University of Chinese Academy of Sciences, China)

[WeLe_P49]

Development Of Polarimetric Millimeter-wave GB-SAR

T. Moriyama [1], K. Yamashiro [1] ([1] Nagasaki University, Japan)

[WeLe_P50]

Daily Oscillation Artefacts In Ground-based SAR Interferometry: Real-time Correction Using Weather Station Data

F. Nurzaman [1], Y. Izumi [1], G. Nico [2], K. Ota [1], M. Dong [1], K. Urano [1] ([1] Muroran Institute of Technology, Japan, [2] Italy's National Research Council, Institute for Applied Mathematics "M. Picone", Italy)

Session Chair(s) Takuma Watanabe

[WeLe_P51]

Preliminary Result Of Coherent Change Detection Using Millimeter-wave GB-SAR

K. Yamashiro [1], T. Moriyama [1] ([1] Nagasaki University, Japan)

[WeLe_P52]

A Novel Dual-band Dual-polarization Filtenna Array For Synthetic Aperture Radar Applications

S. Lai [1], J. T. S. Sumantyo [2], S. Gao[1] ([1] The Chinese University of Hong Kong, Hong Kong Special Administrative Region of China, [2] Chiba University, Japan)

[WeLe_P53]

Self Calibrated Radar Architecture RADAR For FMCW SAR Applications

A. Kumar [1], S. S. Kulkarni [1], S. Biswas [1], R. Gupta[1], Princy M T [1], D. Chawda [1] ([1] GalaxEye Space Pvt. Ptd., India)

[WeLe_P54]

Enhancing Antenna Isolation In X-band FMCW SAR With A Wideband FSS Absorber

S. Biswas [1], S. S. Kulkarni [1], A. Kumar [1], R. Gupta [1], Princy M T [1], S. Christopher [2,3] ([1] GalaxEye Space Pvt. Ptd., India, [2] IIT Madras, India, [3] Defence Research and Development Organization, India)

[WeLe_P55]

Exterior Wall Inspection Using Millimeter-Wave Radar: A Bandwidth-Efficient Approach With Deconvolution

S. Shoda [1], R. Ma [1], L. Yi [1] (1 Ibaraki University, Japan)

[WeLe_P56]

Experimental Study On Inverse Synthetic Aperture Radar Imaging Using Millimeter-Wave 1D-MIMO Radar

K. Kawajiri [1], T. Oshima [1] ([1] Mitsubishi Electric Corporation, Japan)

[WeLe_P57]

Design And Implementation Of High Resolution MMW-Radar 3D Imaging System

L. Zhang [1], Z. Li [1], Z. Liu [1], H. An [1], J. Wu [1], J. Yang [1] ([1] University Of Electronic Science And Technology Of China, China)

[WeLe_P58]

Missing Baseline Recovery Method For Multistatic 3D Imaging Based On Hankel Matrix

C. Wang [1], Y. Hai [1], W. Pu [1], Z. Li [1], J. Yang [1] ([1] University Of Electronic Science And Technology Of China, China)

[WeLe_P59]

Phase-Encoded Intelligent Metasurfaces For Multi-Pulse Staring Imaging Using ISTA

L. Lyu [1], Y. Hai [1], J. Wu [1], W. Pu [1], S. Chen [2], Q. Cheng [2] ([1]University Of Electronic Science And Technology Of China, China, [2] Southeast University, China)

[WeLe_P60]

Effective Super Resolution For SAR Imagery: AI-driven Models With Physically Consistent Degradation

A. Centazzo [1], A. Quattrini [1], A. Peternier [1], M. Papandrea [1], M. Galimberti [1], P. Pasquali [1], T. Leidi [1] ([1] sarmap SA, Italy)

Session Chair(s) Takeo Tadono

[WeLe_P61]

[WeLe_P62]

Multi-frequency SAR For Change Detection Analysis In High Resolution Polarimetric Images

F. Brigui [1, 2, 3], X. Dupuis [1, 2, 3], R´. Guinvarc'h [3], L. Thirion [3] ([1] ONERA, France, [2] University Paris-Saclay France, [3] SONDRA France)

[WeLe_P63]

Investigation On Crack Detection Of Metallic Plate For Periodic Grating In Dispersive Medium By Using Electromagnetic Imaging

Y. Masuda [1], R. Ozaki [1], T. Yamasaki [1] ([1] Nihon University, Japan)

[WeLe_P64]

Towards Realization Of Phase-accurate SAR Simulation: Investigation Of Relationship Between Ray Tracing Resolution And Speckle Characteristics

R. Kudo [1], S. Fukuda [2] ([1] The University of Tokyo, Japan, [2] Japan Aerospace Exploration Agency (JAXA), Japan)

[WeLe_P65]

A Study On ISAR Images And Near-field To Far-field Transformation Using Ray Tracing Method Combined With Physical Optics

Y. Tada [1], G. S. Ching [1], R. Furukawa [1], K.Horihata [1], ([1] Kozo Keikaku Engineering.Inc, Japan)

[WeLe_P66]

Simulation And Performance Analysis Of An Airborne S-Band Single-Pass SAR Tomography System

M. Eitel [1], F. Sica [1], M. Schmitt [1] ([1] University of the Bundeswehr Munich, Germany)

[WeLe_P67]

Investigating The Relationships Between L/C-band InSAR Temporal Decorrelation And Daily Precipitation Over Several Bare Soil Types

Y. Endo [1], Y. Morishita [1], R. Sugimoto [1], R. Natsuaki [2], M. Shimada [3], C. Tsutsumi [1], T. Kouyama [1], R. Nakamura [1] ([1] National Institute of Advanced Industrial Science and Technology (AIST), Japan, [2] The University of Tokyo, Japan, [3] Sigma-SAR LLC & Tokyo Denki University, Japan)

[WeLe_P68]

Settlement Detection In Power Transmission Corridors Using Deep Learning And Satellite-based InSAR

L. Zou [1,2,3], C. Wang [1,2,3], G. Guan [1,2,3], Y. Tang [1,2], P. Yu [1,2,3], J. Ning [1,2,3] ([1] Chinese Academy of Sciences, China, [2] International Research Center of Big Data for Sustainable Development Goals,China, [3] University of Chinese Academy of Sciences)

[WeLe_P69]

Slope-correlated Bias In Mean Velocity Field Derived From L-band InSAR Time-series

S. Nagaoka [1], Y. Takada [1] ([1] Hokkaido University, Japan)

[WeLe_P70]

An Approach To Water Pipeline Damage Estimation Using Interferometric SAR: A Case Study From The 2024 Noto Peninsula Earthquake

K. Karimai [1], W. Liu [1], Y. Maruyama [1] ([1] Chiba University, Japan)

Session Chair(s) Motofumi Arii

[WeLe_P71]

Land Subsidence Measurement By PSInSAR Analysis Using Sentinel-1 And ALOS-2 SAR Data Over Eight Years In The Northern Region Of Chiba Prefecture, Japan

H. Abo [1,2], T. Osawa [2,3] ([1] Tokyo Electric Power Services, Japan, [2] Yamaguchi University, [3] Japan Aerospace Exploration Agency (JAXA))

[WeLe_P72]

Three-dimensional Interferometric SAR Time-series Analysis With Acceleration-aware Estimation

R. Nakamura [1], A. Hirose [1], R. Natsuaki [1] ([1] The University of Tokyo, Japan)

[WeLe_P73]

Response Of Permafrost Active Layer Thickness And Seasonal Surface Deformation To Wildfire In Pan-Arctic

Q. Liu [1], Y. Yi [1], T. Chang [1], H. Jiang [1] ([1] Tongji University, China)

[WeLe_P74]

[WeLe_P75]

Fundamental Study On Oriented Built-up Area Detection Using Polarimetric Correlation Coefficient

A. Nagai [1], R. Sato [1], T. Moriyama [2], H. Yamada [1], Y. Yamaguchi [1], Y. Arima [3], R. Sugimoto [3], T. Kouyama [3], C. Tsutsumi [3], R. Nakamura [3] ([1] Niigata University, Japan, [2] Nagasaki Univerisity, Japan, [3] National Institute of Advanced Industrial Science and Technology, Japan)

[WeLe_P76]

A Hierarchical Framework For Multi-class Change Detection Of Polarimetric SAR Data

M. Kim [1], S.-E. Park [1] ([1] Sejong University, Republic of Korea)

[WeLe_P77]

Quantitative Study On The Effect Of Random Dihedral Component On Scattering Power Decomposition Performance

C. Kobayashi [1], H.Yamada [1], R. Sato [1] ([1] Niigata University, Japan)

[WeLe_P78]

Salt Crust Classification Of Qarhan Salt Lake Based On Polarimetric Feature Reconstruction And Optimization

F. Dong [1,2], Q. Yin [3], Y. Zhao [1,2], W. Hong [1] ([1] Chinese Academy of Sciences , China, [2] University of Chinese Academy of Sciences China, [3] Beijing University of Chemical Technology, China)

[WeLe_P79]

Corn Growth Monitoring Using L-Band Co- And Compact-Polarimetric Complex Coherence

J. Luo [1], J. M. Lopez-Sanchez [2], I. Hajnsek [3,4], N. Bao [1] ([1] Northeastern University, China, [2] University of Alicante, Spain, [3] ETH Zurich, Switzerland, [4] German Aerospace Center (DLR), Germany)

[WeLe_P80]

Fundamental Study On Change Detection Based On Comparison Between Damaged And Undamaged Areas Using PolSAR Data

H. Takahashi [1], H. Yamada [1], R. Sato [1] ([1] Niigata University, Japan)

Session Chair(s) Takashi Shibayama

[WeLe_P81]

Multitemporal PolSAR Change Detection Based On Stochastic Distances Under The Complex Wishart Distribution

S. Xie [1], J. Yin [1], J. Yang [2] ([1] University Of Science And Technology Beijing, China, [2] Tsinghua University)

[WeLe_P82]

Anti-jamming Strategy Design Based On D3QN For Pulse Waveform Agile SAR

X. Kong [1], C. Zhang [1], R. Ran [1], C. Wang [1], H. An [1], H. Yang [1], Z. Li [1], J. Wu [1], J. Yang [1] ([1] University Of Electronic Science And Technology Of China, China)

[WeLe_P83]

On Class Imbalance In SAR Foundation Models For Semantic Segmentation

A. Caglayan [1], N. Imamoglu [1], T. Kouyama [1] ([1] National Institute of Advanced Industrial Science And Technology (AIST), Japan)

[WeLe_P84]

An Unsupervised Learning-Based Waveform Optimization Scheme For SAR Against Combined Interference

M. Shen [1,2], K. Huang [1], W. Wang [1], M. Lou [1], M. Zhong [1], H. An [1], J. Wu [1], H. Yang [1], J. Yang [1] ([1] University of Electronic Science and Technology of China, China, [2] East China Research Institute of Electronic Engineering, China)

[WeLe_P85]

Automatic Detection Of Tectonic Surface Deformation In InSAR Unwrapped Maps Using Deep Learning

Y. Li [1], T. Sagiya [1] ([1] Nagoya University, Japan)

[WeLe_P86]

Optical-SAR Image Registration Based On Self-supervision And Cross-domain Dynamic Uncertainty Mechanism

C. He [1], L. Liu [1], W. Liu [1], F. Bi [1] ([1] North China University of Technology, China)

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Masked Siamese Autoencoder Using Multi-frequency SAR Data

R. Sugimoto [1], C. Tsutsumi [1], T. Kouyama [1] ([1] National Institute of Advanced Industrial Science And Technology, Japan)

[WeLe_P88]

Power Tower Detection Method For SAR Images Based On Deep Leaning

C. Jiang [1,2,3], C. Wang [1,2,3] ([1] Chinese Academy Of Sciences, China, [2] China International Research Center of Big Data For Sustainable Development Goals, China, [3] University of Chinese Academy of Sciences, China)

[WeLe_P89]

Utilization Of Time-series SAR Data For Detecting Disaster Affected Area Using ML Techniques

V. Katiyar [1], T. Eguchi [1], A. Bormudoi [1], M. Nagai [1] ([1] Yamaguchi University, Japan)

[WeLe_P90]

Region-Guided Registration Method For High-Resolution Lunar Optical And SAR Images

Y. Cao [1,2], H. Tan [1], S. Li [1,2] ([1] Technology and Engineering Center For Space Utilization, China, [1] University of Chinese Academy of Sciences, China)

[WeLe_P91]

Multi-resolution Polarimetric Feature Image Fusion Algorithm For Multi-band Polarimetric SAR System

M. Jiang [1], Y. Hai [1], Z. Li [1], J. Yang [1] ([1] University of Electronic Science And Technology of China, China)

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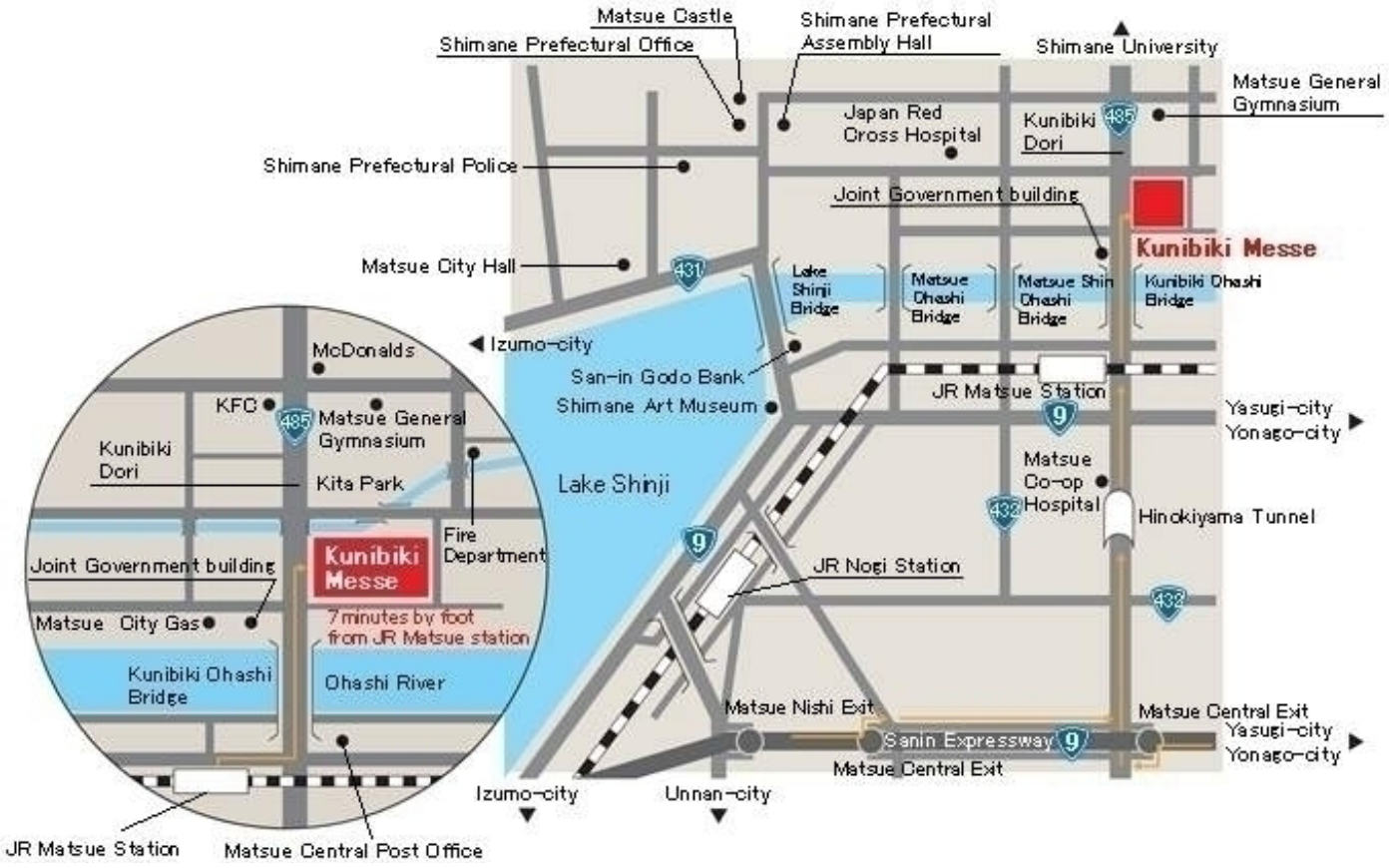

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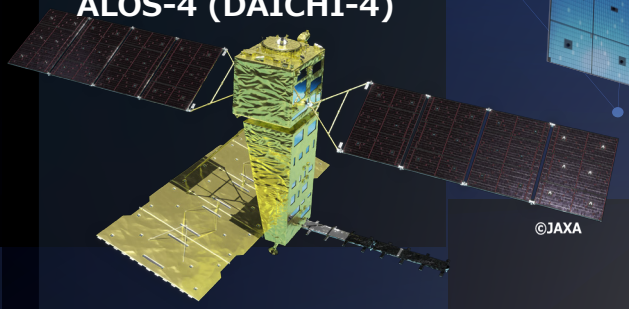

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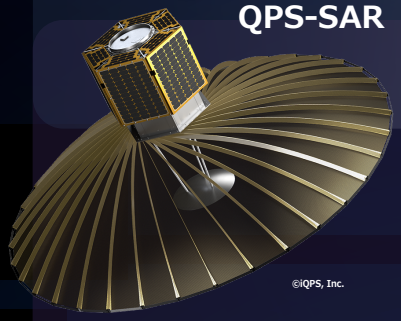

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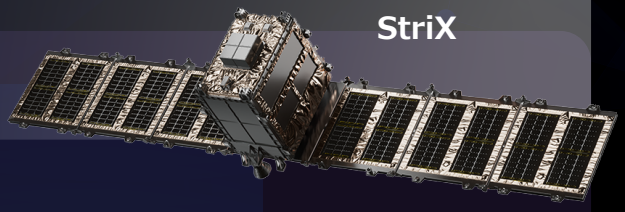

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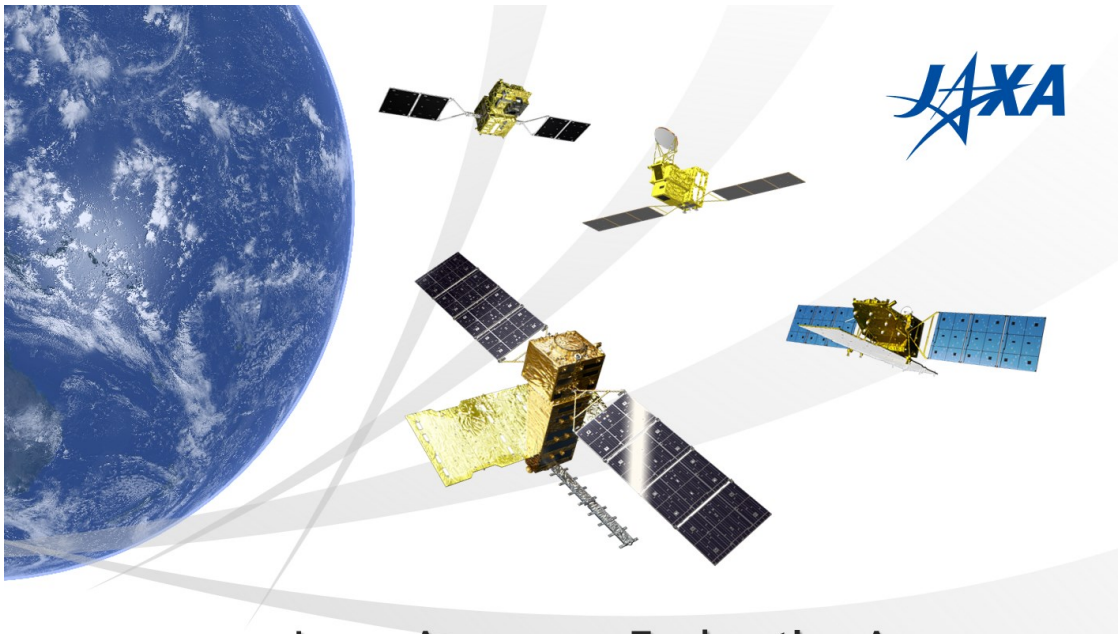

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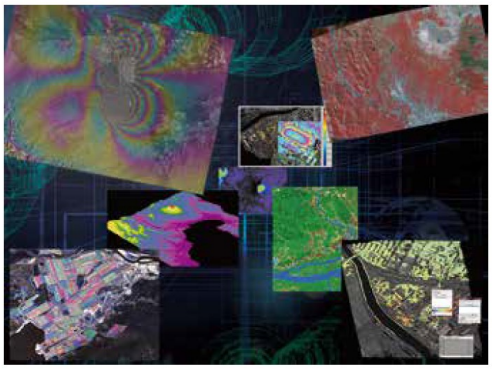

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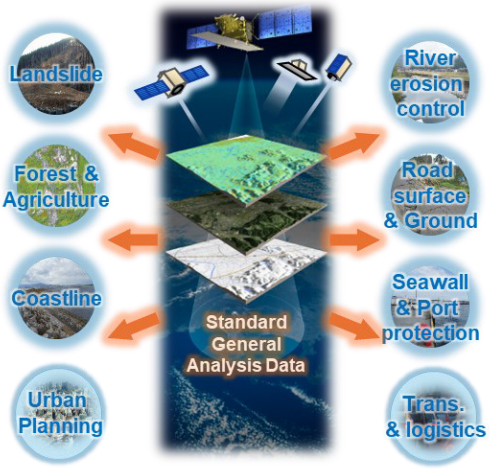

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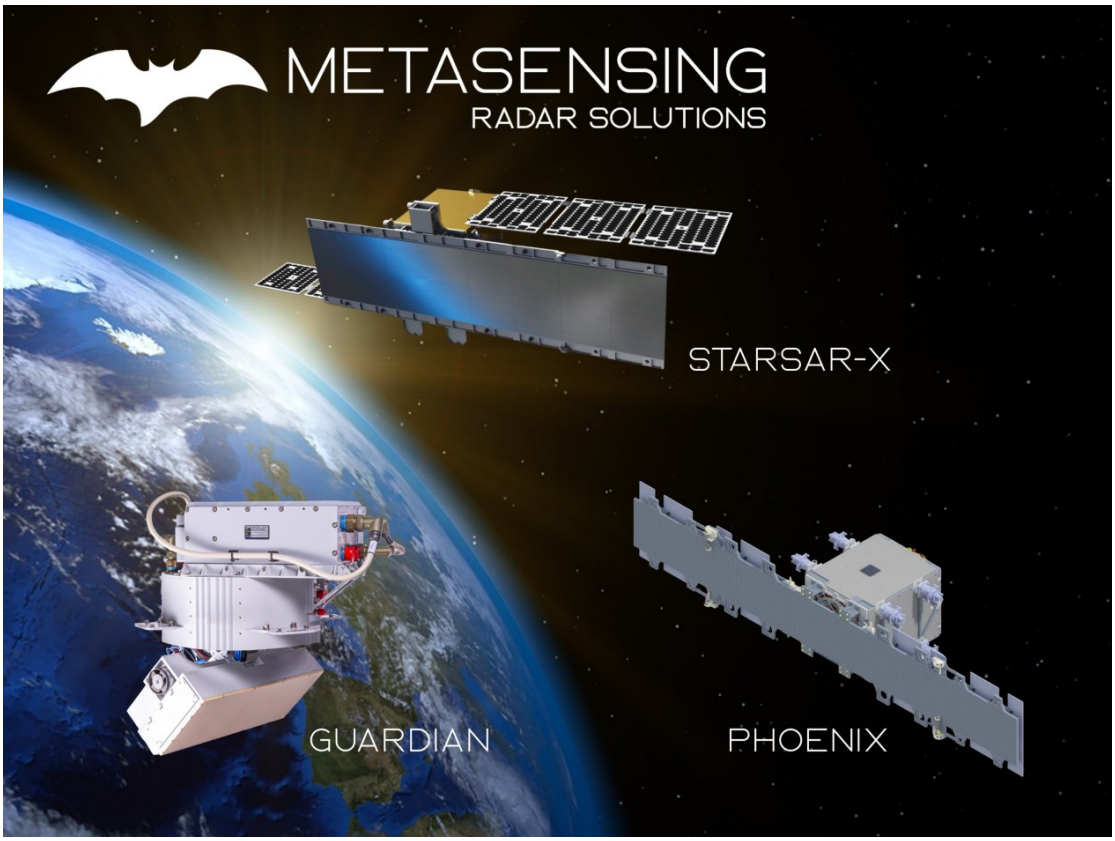
4-6-1 Iidabashi, Chiyoda-ku, Tokyo,
21 Towa Building
TEL：03-6380-8927
HP：https://www.sd-services.co.jp/ep/



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Masafumi Nakagawa, Shibaura Institute of Technology, Japan.
Wen Liu, Chiba University, Japan.
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