The Young Earth System Scientists (YESS), American Geophysical Union Hydrology Section Student Subcommittee (AGU H3S), and the Japanese Early Career Researchers (ECR) community, with the support of GEWEX and the World Climate Research Programme (WCRP), will jointly organize a 3-day workshop on *Extremes in the water cycle and risks to society: Understanding 'actionable' information in hydroclimate research*.
The event will be held between **July 4th - 6th, 2024**, with a Space Agency Day on July 7th, before the 9th GEWEX Open Science Conference (July 8th - 12th), in Sapporo, Japan. The workshop venue will be **Hokkaido University**.

Day 1 - July 4th (Thursday)

Time table	Duration	Description	Room
7:45 - 8:30	45 min	Arrival & registration of workshop participants	
8:30 - 8:40	10 min	General opening of workshop	N283
8:40 - 8:50	10 min	Opening words from Hokkaido University	
8:50 - 9:10	20 min	Opening words from WCRP/GEWEX IPO. Overview presentation on WCRP/GEWEX,, and 9th GEWEX OSC themes	
9:10 - 9:40	30 min	Short introduction of the ECRs networks organizers of the ECR workshop	
9:40 - 10:30	40 min	Short introduction by participants	
10:30 - 11:00	30 min	*Coffee break*	
11:00 - 12:00	1 hr	Prospective outcomes of workshop & plan/schedule **Introduction to Working Groups (WGs):** **WG1:** Extremes in the water cycle and risks to society **WG2:** Understanding "actionable" information in hydroclimate research **WG3:** Emergent issues: AI/ML applications in the water-energy nexus & Climate Intervention in the Water and Energy Cycle	N283
12:00 - 12:15	15 min	Group photo	

12:15 - 13:15	1 hr	*Lunch break*	
13:15 - 14:30	1 hr 15 min	WGs discussions in break-out groups	N271, N272 & N273
14:30 - 15:00	30 min	*Coffee break*	
15:00 - 16:30	1 hr 30 min	WGs discussions (continued) in break-out groups	N271, N272 & N273
16:30 - 17:00	30 min	Plenary wrap-up break-out groups – Closure of Day 1	N283
19:00 - 21:00		*Social Event (details will follow by personal communication to participants)*	

Day 2 - July 5th (Friday)

Time table	**Duration**	**Description**	**Room**
8:45 - 9:15	15 min	Introduction to Day 2 (wrap up of the first day)	N283
9:15 - 9:45	30 min	Impulse Talk Monica Morrison (WG1/WG2 topic)	
9:45 - 10:15	30 min	Impulse Talk Yohei Sawada (WG3 topic)	
10:15 - 10:45	30 min	*Coffee break*	
10:45 - 12:00	1hr 15 min	WGs discussions (continued) in break-out groups: ***prepare presentations on WG outcomes for next day***	N271, N272 & N273
12:00 - 13:00	1 hr	*Lunch break*	
13:00 - 18:00		Field excursion. The visit includes the following places: - Lake Shikotsu - Chitose River - Izarigawa Dam - Sapporo Beer Garden	

Day 3 - July 6th (Saturday)

Time table	Duration	Description	Room
8:30 - 9:10	40 min	Lecture on satellite remote sensing of precipitation, clouds, and radiation by JAXA	B32
9:10 - 10:40	1 hr 30 min	JAXA API introduction and training. Hands-on using API	
10:40 - 11:10	30 min	*Coffee break*	
11:10 - 11:50	40 min	Lecture on technical and operational aspects of the NASA/SWOT mission	B32
11:50 - 13:20	1 hr 30 min	Hands-on activity using NASA/SWOT products	
13:20 - 15:20	2 hr	*Lunch break*	
15:20 - 16:45	1 hr 25 min	WGs outcome presentations and consolidation of an integrated ECR perspective on main workshop topics	B32
16:45 - 17:00	15 min	Synthesis and closure of ECRs Workshop	
17:00 - 17:30	30 min	*Social gathering - End of the workshop*	

Bonus event (Space Agency event) - July 7th (Sunday)

This event will take place at the **Keio Plaza Hotel**

13:00 - 13:20	20 min	NASA
13:20 - 13:40	20 min	ESA
13:40 - 14:00	20 min	CNES
14:00 - 14:20	20 min	JAXA
14:20 - 14:40	20 min	*Break*
14:40 - 15:00	20 min	China
15:00 - 15:20	20 min	South Korea
15:20 - 15:40	20 min	EUMETSAT
15:40 - 16:00	20 min	Brazil (Online)
16:00 - 16:10	10 min	*Break*
16:10 - 17:10	1 hour	**Four parallel breakout sessions** Each panel consists of 4 members plus one chair - including agency representatives and scientists. The purpose of the breakout discussion: Q&A between space agencies and scientists (as the oral presentation schedule is tight); discussion of the given topic(s). The overarching question is: how do we make these measurements and integrate them with Earth system modeling? The four generic topics are: ● Precipitation - liquid, solid, mixed, size distribution ● Surface water level and snow depth/SWE ● Clouds and aerosols ● Solar and longwave radiation at surface and in the atmosphere
17:10 - 18:30	1 hr 20 min	Informal gathering (sponsored by JAXA)