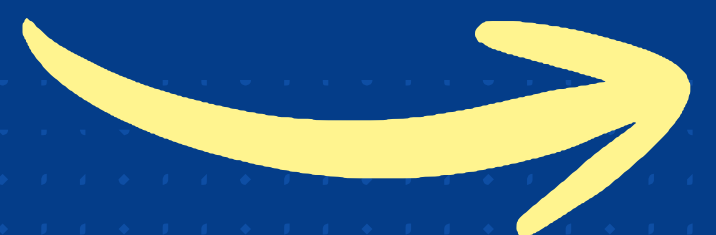




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EGU Programm

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Cryosphere Sessions

Mass Loss of the Antarctic Peninsula ice sheet and its peripheral glaciers from 2007 to 2021

Maud Bernat, Etienne Berthier, Amaury Dehecq, Romain Hugonnet, Joaquin MC Belart, Naomi Ochwat, Ted Scambos, Peter Kuipers Munneke, Elizabeth Case, Louis-Marie Gauer, and David Youssefi

Mon, 4 May, 14:00–15:45 | Room 0.15

A Random Forest and XGBoost analysis of the temporal and spatial variability of snow depth in the Zugspitze region based on terrain features, simulated energy balance and remote sensing

Paul Schattan, Jakob Knieß, Simon Gascoin, Juilson Jubanski, Roberta Facchinetti, Carolin Rempfer, Karl-Friedrich Wetzel, Christian Voigt, Karsten Schulz, and Franziska Koch

Wed, 06 May, 14:00–15:45 (CEST) Hall X5 | X5.174

The Hidden Threat of Glacier Melt: Rising Mercury Levels in French Alpine Lakes

Davide Mattio, Stéphane Guedron, Pierre Sabatier, Aurélien Dommergue, Antonio Martínez Cortizas, Antoine Rabatel, and Hélène Angot and the EPOCH ALPS team

Thu, 07 May, 16:35–16:45 (CEST) Room L2

Use of time-lapse photogrammetry to capture substantial accumulation rates on an on-glacier avalanche deposit

Marin Kneib, Patrick Wagnon, Laurent Arnaud, Louise Balmas, Olivier Laarman, Bruno Jourdain, Amaury Dehecq, Emmanuel Le Meur, Fanny Brun, Andrea Kneib-Walter, Ilaria Santin, Laurane Charrier, Thierry Faug, Giulia Mazzotti, Antoine Rabatel, Delphine Six, and Daniel Farinotti

Fri, 08 May, 09:25–09:35 (CEST) Room -2.20

Comparing approaches for glacier elevation change estimation using optical DEM time series

Clare Webster, Francesco Ioli, Joaquín M.C. Belart, Tómas Jóhannesson, Etienne Berthier, Enrico Mattea, Robert McNabb, Désirée Treichler, Luc Girod, Michael Zemp, and Livia Piermattei

Fri, 8 May, 08:30–12:30 | Room L1

Glacier elevation change estimates: decoding the systematic differences between radar altimetry and DEM differencing

Anne Guyez, Etienne Berthier, Livia Jakob, Noel Gourmelen, Livia Piermattei, Clare Webster, Samuel U. Nussbaumer, Michael Zemp, Joaquín M.C. Belart, and Tómas Jóhannesson

Fri, 8 May, 14:00–15:45 | Hall X5



Land Water Sessions

HS8.2.14 Impact of the representation of water transfer in the unsaturated zone on water flux in a ecohydrological critical zone model.

David Fuseau, Sylvain Kuppel, Agnès Riviere, Sylvain Weill, Jean Marcais, and Isabelle Braud
Tue, 05 May, 14:00–15:45 (CEST) Hall A | A.124

ESSI2.6 Towards a FAIR Water Data Ecosystem: The OneWater FAIR Water Data Platform

Anne Puissant, Sylvain Grellet, Isabelle Braud, Mario Adam, Fanny Arnaud, Hélène Bressan, Véronique Chaffard, Charly Coussot, Stéphane Debard, Jérôme Fozzani, Yvan Le Bras, Eric Lecaude, Kenneth Maussang, Frédéric Moine, Stéphane Ollagnier, Hervé Squividant, Joel Sudre, and Lucas Valarcher
Wed, 06 May, 14:00–15:45 (CEST) Hall X4 | X4.59

HS6.11 Tracking Fluvial Inundations and Groundwater Recharge Areas in the Upper Mekong Delta by Combining Sentinel-1, SWOT, and In-Situ Data

Ismail Bala Muhammad, Hind Oubanas, Christina Orieschnig, Pierre-Olivier Malaterre, Paul Baudron, Sylvain Massuel, Cécile Cazals, and Sambo Lun
Wed, 06 May, 16:15–18:00 (CEST) Hall A | A.93

ESSI3.1 OneWater4all platform and ecosystem: where VRE meets FAIR international standards

Sylvain Grellet, Hervé Squividant, Mario Adam, Fanny Arnaud, Isabelle Braud, Hélène Bressan, Stéphane Debard, Jérôme Fozzani, Véronique Chaffard, Charly Coussot, Kim Anh Trinh, Yvan Le Bras, Eric Lecaude, Kenneth Maussang, Frédéric Moine, Stéphane Ollagnier, Anne Puissant, Joël Sudre, Lucas Valarcher, and Alexia Vouch and the other OneWater Data project members and associated Water4All partners
Thu, 07 May, 08:55–09:05 (CEST) Room -2.33

HS6.4 Integrating AI-derived SAR Flood Extent Map Uncertainties in Remote Sensing Data Assimilation for Flood Forecasting

Thanh Huy Nguyen, Yu Li, Sophie Ricci, Andrea Piacentini, Ludovic Cassan, Raquel Rodriguez Suquet, Santiago Peña Luque, Quentin Bonassies, Christophe Fatras, Marco Chini, and Patrick Matgen
Thu, 07 May, 09:45–09:55 (CEST) Room 2.44

HS6.4 Absolute Water Volume Estimation from Multi-Sensor approach using SWOT and Sentinel-2

Benjamin Tardy, Come Oosterhof, Mathilde De Fleury, Abderrahmane Aiche, and Gaël Nicolas
Thu, 07 May, 11:05–11:15 (CEST) Room 2.44

HS2.5.1 ESA CCI River Discharge precursor project: current status and challenges

Sylvain Biancamaria and the CCI River Discharge precursor project
Thu, 07 May, 14:00–15:45 (CEST) Hall A | A.41



Land Water Sessions

HS2.5.1 Improving river-floodplain relationship in PARFLOW-CLM in continental West Africa as an early step to build a multisource hydrologic reanalysis

Pedro Felipe Arboleda-Obando, Jean-Martial Cohard, Alexandre Zoppis, Hector Basile, and Thierry Pellarin

Thu, 07 May, 14:00–15:45 (CEST) Hall A | A.44

HS2.5.1 Advancing Large-Scale Hydrological Modeling for Climate Studies through Multi-Source Assimilation of ESA CCI Products

Malak Sadki, Kaushlendra Verma, Vanessa Pedinotti, Simon Munier, Gaëtan Noual, Gilles Larnicol, Sylvain Biancamaria, Adrien Paris, Laetitia Gal, Philippe Mouro, and Clément Albergel

Thu, 07 May, 14:00–15:45 (CEST) Hall A | A.45

HS6.6 SWOT data assimilation in 2D hydrodynamic model for flood studies

Quentin Bonassies, Ludovic Cassan, Thanh Huy Nguyen, Andrea Piacentini, Sophie Ricci, Raquel Rodriguez, Santiago Peña Luque, and Christophe Fatras

Thu, 07 May, 16:45–16:55 (CEST) Room 3.29/30

HS6.6 Assessing and Enhancing SWOT Hydraulic Visibility and Slopes in Narrow Rivers Using High Resolution Models

Thomas Ledauphin, Guillaume Piasny, Pierre-André Garambois, Léo Pujol, Amanda Samine Montazem, Kevin Larnier, Louis Suchet, Maxime Azzoni, Jérôme Maxant, and Hervé Yesou

Thu, 07 May, 17:25–17:35 (CEST) Room 3.29/30

HS6.6 Estimation of water elevation and volume changes over mountain lakes using Sentinel-1/2 and SWOT data

Laurane Charrier, Fatima Karbou, Guillaume James, Nicolas Gasnier, Adrien Guerou, and Santiago Peña-Luque

Fri, 08 May, 08:30–10:15 (CEST) Hall A | A.83

HS6.6 From SWOT Cal/Val to Science Phase : Assessing and Enhancing Multi-Mission Satellite Altimeter Data (SWOT, Sentinel-3) for Hydraulic Visibility of the Natural Upper Rhine

Léo Pujol, Thomas Ledauphin, Maxime Azzoni, Pierre-André Garambois, Laurent Schmitt, Valentin Chardon, Valentin Fouqueau, and Hervé Yesou

Fri, 08 May, 08:30–10:15 (CEST) Hall A | A.

HS6.6 Assessing SWOT PIXC surface classification using imagery-based products

Mohammad J. Tourian, Soheil Ettehadieh, Omid Elmi, Hind Oubanas, and Tamlin Pavelsky

Fri, 08 May, 08:30–10:15 (CEST) Hall A | A.85



Vegetation, Soils & Agrosystems Sessions

HS6.2 Fresnel-Based Reflectivity Index for Surface Soil Moisture Retrieval from Multi-Polarization SAR Observations

Vaibhav Gupta, Mehrez Zribi, Nicolas Baghdadi, and Sekhar Muddu

Mon, 04 May, 09:09–09:11 (CEST) PICO spot 4 | PICO4.13

BG3.39 Net carbon losses in Central African forests revealed by high-resolution biomass change maps

Liang Wan, Philippe Ciais, Aurélien de Truchis, Yidi Xu, Martin Brandt, Jérôme Chave, Clément Bourgoin, Jean-Pierre Wigneron, Jean-François Bastin, Wei Li, Youngryel Ryu, Shidong Liu, David Purnell, Ibrahim Fayad, Le Bienfaiteur Sagang, Arthur Vander Linden, Timothée Besisa, and Pierre Ploton

Mon, 04 May, 17:00–17:10 (CEST) Room N1

BG3.41 Buffering of microclimate extremes in the understory and its consequences for tree seedling survival

Jerome Ogee and the The ANR project MaCCMic Team

Tue, 05 May, 15:20–15:30 (CEST) Room 2.17

X1.102 Integrating Earth Observation and Multi-Agent Modelling to Assess Climate and Land-Use Impacts on Large Herbivore Movement in Amboseli, Kenya

Angela Wanjiku, Annelise Tran, Renaud Marti, Victor N. Mose, and Pierre Sosnowski

Wed, 6 May, 08:30–10:15 | Hall X1

X1.102 Simulating the radiative transfer budget of the Amboseli National Park (Kenya) to support vegetation monitoring using remote sensing

Pierre Sosnowski, Thibault Catry, Victor Mose, and Nicodemus Mwanja

Wed, 6 May, 08:30–10:15 | Hall X1



Vegetation, Soils & Agrosystems Sessions

SSS8.4 Sentinel-2 indices for enhanced prediction of soil rock fragments cover in a Spanish vineyard

Hayfa Zayani, Emmanuelle Vaudour, Maria José Marques Perez, Nicolas Baghdadi, Pascal Pichelin, Juan Emilio Herranz-Luque, Carlos García-Delgado, Pilar Carral, Mukhtar Adamu Abubakar, Didier Michot, and Youssef Fouad

Thu, 07 May, 10:45–12:30 (CEST) Hall X3 | X3.183

SSS6.8 Sentinel-derived soil moisture retrievals during winter and summer cropping: Potential and limitations of S²MP

Henri Bazzi, Marit Hendrickx, Nicolas Baghdadi, and Sami Najem

Thu, 07 May, 10:45–12:30 (CEST) Hall X3 | X3.146

BG9.4 Towards using GEDI in the French NFI-based AGB estimations: Systematic Assessment of Plot-level Simulations Using Nationwide Airborne LiDAR HD

Sélim Behloul, Nikola Besic, Steven Hancock, Ibrahim Fayad, Cédric Vega, Sylvie Durrieu, Jean-Pierre Renaud, and Philippe Ciais

Fri, 08 May, 15:15–15:25 (CEST) Room N1



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HS2.1.9

Revisiting the meanings of the Critical Zone through the OZCAR research infrastructure example, definitions and evolutions

Convener : Damien Jougnot, Isabelle Braud, Julien Tournebize, Brice Boudevillain, Agnès Rivière, Jean Marcais, Eliot Chatton, Sylvain Pasquet, Julien Bouchez, Héloïse Bénard, and Jérôme Gaillardet

- Orals : **Tue, 05 May, 09:10–09:20 (CEST) Room 2.44**

ESSI2.6

Shaping the European landscape for Earth System Science – Making transnational data use of research infrastructures

Convener: Wolfgang zu Castell | Co-conveners: Sebastien Payan, Jean-Philippe Malet, Sören Lorenz

- Orals : **Wed, 06 May, 16:15–18:00 (CEST) Room -2.33**
- Posters on site : **Attendance Wed, 06 May, 14:00–15:45 (CEST) | Display Wed, 06 May, 14:00–18:00 Hall X4**





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ESSI3.1

From FAIR Data to Collaborative Science: Research Data Infrastructures and Virtual Research Environments for Earth System Science

Co-sponsored by AGU and JpGU

Convener: Alessandro Rizzo | Co-conveners: Vasco Mantas, Kirsten Elger, Maria-Luisa Chiusano, Marie Jossé^{ECS}, Heinrich Widmann, Jérôme Détoç

- Orals : ***Thu, 07 May, 08:30–10:15 (CEST) Room -2.33***
- Posters on site : ***Attendance Fri, 08 May, 16:15–18:00 (CEST) | Display Fri, 08 May, 14:00–18:00 Hall X4***

ESSI4.3

Data Terra: a federated research infrastructure transforming Earth system data into knowledge and services for science and public decision-making

Convener: Erwan Bodéré, Alessandro Rizzo, Karim Ramage, and Jérôme Detoc

Poster on site : ***Thu, 07 May, 14:00–15:45 (CEST) Hall X4 | X4.94***





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