# 17 - 21 NOVEMBRE 2025 3<sup>rd</sup> Edition



















# PRESENTATION OF THE ANGERS AUTUMN SCHOOL 2025: BiOGEO-2D When sediment chemistry becomes visible Discover 2D biogeochemical gels

#### The event in a few words:

The Angers Autumn School (AAS) is a scientific event organized by students from the Master's program in Biology, Ecology, and Evolution (BEE), specializing in Marine Environments, Anthropization, and Diagnosis (MAD) at the University of Angers, and researchers from the Laboratory of Planetology and Geosciences (LPG). This year, the event will focus on exploring biogeochemical processes in sediments in 2 dimensions at sub-millimeter scale using 2D DET (Diffusive Equilibrium in Thin film) gels, coupled with colorimetric methods and hyperspectral imaging. Taking place over five days, from 17 to 21 November 2025 at the Faculty of Science of the University of Angers, the event offers a varied program combining fieldwork, scientific presentations, and practical workshops. It offers participants a unique opportunity to discover and experiment with cutting-edge methods in biogeochemitry with internationally recognised specialists.



#### Theme & Objectives:

Chemical gradients in sediment or soil pore water can be strongly affected by biogenic structures induced by macrofauna (burrowing) or vegetation (root development). Quantifying chemical species concentrations at high spatial resolution and in 2D allows us to characterize the geochemical processes occurring around these structures and assess their impact on benthic exchanges. The Angers Autumn School 2025 will train participants in the preparation and use of 2D DET gels combined with colorimetry and hyperspectral imaging. The objectives of this training week are to:

- Characterize micro-scale biogeochemical processes by exploring the impact of structures (polychaete burrows, hydrophytic plant roots) on the chemical composition of sediments.
- Introduce, experiment with and master advanced laboratory and field techniques in biogeochemistry using 2D DET gels and hyperspectral imaging.
- Promote international exchanges between researchers, students, and professionals while encouraging the sharing of new discoveries.

#### A varied program combining science, fieldwork & exchanges:

The Angers Autumn School offers a program combining scientific research, field experiments and practical workshops, including:

- A field day on the Brillantes mudflat in the Loire estuary with a mobile laboratory for in situ analysis of sediment chemistry using 2D DET gels.
- Scientific presentations led by experts in the field.
- Technical and methodological workshops to learn how to prepare 2D DET gels, assemble probes, and calibrate and analyze the data collected.
- Interactive and creative sessions, where participants will have the opportunity to design/customize their own laboratory tools for handling 2D gels.

#### Speakers:

The Angers Autumn School will welcome experts in biogeochemistry, including:

- João Barreira (LPG) Postdoctoral researcher working on biogeochemical cycles in coastal ecosystems.
- Vincent Bouchet (LOG) Professor specializing in benthic ecology.
- Florian Cesbron (CNAM Intechmer) Associate professor specializing in the influence of seagrass meadows on sediment geochemistry and meiofauna.
- Maxime Daviray (CNAM Intechmer) Postdoctoral researcher working on the influence of seagrass meadows on biogeochemical fluxes and sediment meiofauna
- Corentin Guilhermic (LPG) Postdoctoral researcher working on biogeochemical modeling.
- Patrick Launeau (LPG) Professor specializing in hyperspectral remote sensing.
- Vona Méléder (ISOMER) Professor specialising in microphytobenthos ecophysiology and remote sensing, and head of the Horizon Europe Rewrite project, dedicated to restoring intertidal sedimentary ecosystems for carbon storage and climate adaptation.
- Édouard Metzger (LPG) Professor specializing in sediment biogeochemistry and the development of sub-millimetre resolution geochemical analysis methods.
- Aurélia Mouret (LPG) Associate professor specializing in sediment biogeochemistry and organic matter remineralization processes.
- Aubin Thibault de Chanvalon (IPREM) Researcher specialising in geochemistry and 2D modelling.

#### Target audience:

This event is intended for master's students, PhD students, postdoctoral researchers, scientists, and professionals who wish to deepen their knowledge of biogeochemistry, gain practical experience with 2D DET gels, explore sediment/soil biogeochemical processes and discover hyperspectral imaging techniques.



# information, prices & registration:

	Registration before 31 July 2025	Registration between 1 August and 30 September 2025
Master's student PhD student Postdoctoral researcher	200 €	250 €
Academic	300 €	350 €
Non-academic	500 €	700 €

> Registration is open until 30 September 2025

> To register,



> To contact us and stay informed about the AAS, follow our accounts:



Find us at the Faculty of Science in Angers at 2 Bd de Lavoisier, 49000 Angers

# Need accommodation in Angers? Take advantage of our partner hotels!



We have selected comfortable and well-located hotels offering preferential rates to participants of the Angers Autumn School 2025. All hotels are within a 5-minute walk of the tram, which provides easy access to the Faculty of Sciences at the Campus Belle-Beille terminus, located just a 7-minute walk from the Faculty of Science. With a tram ticket costing 1.60€, reaching the campus is both convenient and affordable.

#### Hôtel Continental (14 Rue Louis de Romain, 49100 Angers)

3-min walk from the Ralliement tram stop (line C towards the Campus Belle-Beille terminus)

- Standard single room: 97€ / night (breakfast included)
- Tourist tax: 1.50€ / night / person
- Booking: Use the code AAS Université d'Angers for a 10% discount on the public rate

## Ibis Angers Centre (Rue de la Poissonnerie, 49100 Angers)

3-min walk from the Molière tram stop (lines B or C towards the Campus Belle-Beille terminus)

- Single room: 88€ / night (breakfast included)
- Double/twin room: 100€ / night (breakfast included)
- Tourist tax: 1.50€ / night / person
- Booking: Use the code Autumn School (for individual reservations) group payment possible under certain conditions
- Free cancellation up to 30 days before arrival

## Ibis Centre Gare (23 Bis Rue Paul Bert, 49100 Angers)

4-min walk from the Foch Haras tram stop (line C towards the Campus Belle-Beille terminus)

- 16 November: Single room 79€, double room 89€
- 17-21 November: Single room 109€, double room 119€
- Tourist tax: 1.50€ / night / person
- Booking: Use the code Angers Autumn School reservation secured with a credit card

Book now to take advantage of these special rates, subject to availability.

The Angers Autumn School is a unique opportunity to explore sediment/soil biogeochemistry in a setting that combines cutting-edge research, fieldwork and enriching discussions.

In **2024**, **21** participants from **14** different countries joined the adventure with very positive feedback!

We look forward to welcoming you this year!

L'AAS 2025 is financially supported by the University of Angers, OSUNA, PEPR FairCarboN and LPG.





