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Ocean an	d Coastal	Nutrients V	Vorkshop	
Brest, 16-19 sep	ot. 2024			
Funded by:		Breet Supported by:	C C C C C C C C C C C C C C C C C C C	rago (agan

PNBI				
lall	8h30	Participant registration		
	9h	Welcome and opening		
		lfremer		
	9h15	Introduction to the workshop		
		Anne Daniel (Ifremer) and Julie Janssens (CSIRO)		
		Session 1: INIV debriefing		
	9h20	Overview of the 2018 and 2023 INIV voyages		
		Andreas Marouchos (CSIRO)		
Conference room	9h40	Debriefing of the 2023 INIV voyage by each participating team (MLML/university of Hawaii, CSIRO, SCRIPPS		
207		DFO, ICM, NIOZ/Bangor university, Ifremer, KIOST, Xiamen university)		
	10h45	Coffee break		
	11h15	Comparability and uncertainty studies		
		Stephen Tibben (CSIRO)		
	11h35	Duplicate measurements		
		Karel Bakker (NIOZ)		
	11h55	Samples preservation		
		Anne Daniel (Ifremer)		
Reception area	12h30	Lunch		
		Session 2: Nutrients measurements in open ocean and coastal waters		
	14h00	Production and use of nutrient CRMs during the JAMSTEC cruises		
		Akihiko Murata (JAMSTEC) virtual talk		
	14h20	Calculation of the measurement uncertainty using intercalibration exercises (Quasimeme)		
		Marc Knockaert (Institute of Natural Sciences / QUASIMEME)		
	14h40	Example of HyPro CISRO software to process raw data		
		Pavie Nanthasurasak / Merinda McMahon (CSIRO)		
	15h00	Alternatives techniques to SFA to measure nutrients in seawater		
Conference room 207		Max Grand (MLML) / Jin-Ming Tang (University of Xiamen)		
	15h20	GO-SHIP Repeat Hydrography Nutrient Manual		
		Susan Becker (SCRIPPS) - Virtual talk		
	15h40	Coffee break (time for exchange with IUEM Master's students)		
		Session 3: Nutrient data gualification		
	16h10	Use of software to provide an overview of the data obtained during a cruise		
		Pascale Lherminier (Ifremer)		
	16h30	European nutrient data management		
		Julie Gatti (Ifremer)		
	16h50	Data flagging, metadata, cross-checking of data : GLODAP and GO-SHIP criteria		
		Nico Lange (GLODAP) - Virtual talk		
		End		

## Tuesday 17 september: Technical sessions in the lab

Tuesuay 1	septe	ember: recinical sessions in the lab
PNBI + IUEM		
		Session 4: Manufacturers talks
PNBI - conference room 207	8h30	Evolution of flow analysis systems at SEAL Analytical
		Paul Schultz, Lalicia Potter, Hervé Ozouf (SEAL representatives)
	8h50	Evolution of flow analysis systems at Skalar
		Luc Uytterhoeven (SKALAR)
	9h15	Questions and answers
	9h45	Coffee break
		Session 5: lab workstations
IUEM - laboratory A021	10h30	1st round of lab workstations
PNBI - Reception area	12h00	Lunch
IUEM - laboratory A021	13h15	2nd round of lab workstations
	14h45	3rd round of lab workstations
IUEM parking	16h15	Departure for the port of Brest by bus
Brest port	17h15	"L'Atalante" ship tour https://www.flotteoceanographique.fr/en/Facilities
	19h00	Workshop dinner at "Le café du port"

### Lab workstations

1 Interferences (salt effect, optical blank, )

2 Corrections (tray protocole, carryover, blanks, QC, ..)

3 Calibration (preparation of working standards, use of artificial seawater/depleted seawater, reduction colum efficiency, slope only)

3 groups (10 people each) rotating successively on the 3 workstations

with the technical support of



#### Wednesday 18 September: Discussion in small working groups PNBI Session 6: Discussion on 6 study topics 9h00 1st round of discusssion 10h00 Conference 2nd round of discussion room 207 + 11h00 Coffee break room 113 11h30 3rd round of discussion Reception area 12h30 Lunch 14h00 4th group of discussion 15h00 5th group of discussion Conference 16h00 Coffee break room 207 + room 113 16h30 6th group of discussion 17h30 End

### Topic for discussion

- 1 Standards and reagents
- 2 Raw data process (need for an common automatic script available in open source language)
- 3 Calculation of lab uncertainty, limit of quantification,...
- 4 Use of CRMs in the analytical process and for results corrections
- 5 Harmonization of metadata reporting
- 6 Setting up an online platform for sharing technical issues, expertise and practices
- 6 groups (6 people each) rotating successively on the 6 workstations

-	L9 Septer	nber: Summary, next steps and conclusion
PNBI		
		Session 7: Summary of each technical session by the group leaders
conference room 207	9h00	Lab workstation 1
	9h20	Lab workstation 2
	9h40	Lab workstation 3
	10h00	Discussion point 1
	10h20	Discussion point 2
	10h40	Discussion point 3
	11h	Coffee break
	11h30	Discussion point 4
	11h50	Discussion point 5
	12h10	Discussion point 6
Hall	12h30	Lunch
conference room 207	14h00	Session 8: Organisation to compile the work done during the workshop
	15h30	Session 9: Next steps and conclusion
	16h00	End

# How to come to the workshop from Brest city center?



The workshop will be held at PNBI (Monday, Tuesday, Wednesday and Thursday) and at IUEM (Tuesday)

Bus transport (<u>BIBUS</u>) is the preferred option. Two routes are available:

- <u>Bus 2b</u> (destination Technopôle) to "De Rochon" stop

- <u>Tramway A</u> to "Porte de Plouzané" (terminus) and **then bus 2b** (destination Technopôle) to "De Rochon" stop

40mn bus ride. Fare is 1.8 €. Tickets are valid 1 hour.

From "De Rochon" bus stop, climb few hundred of meters,PNBI (GPS 48°21'34.7"N 4°33'52.0"W) is on the rightIUEM (GPS 48°21'32.0"N 4°33'47.3"W) a few meters further on the left