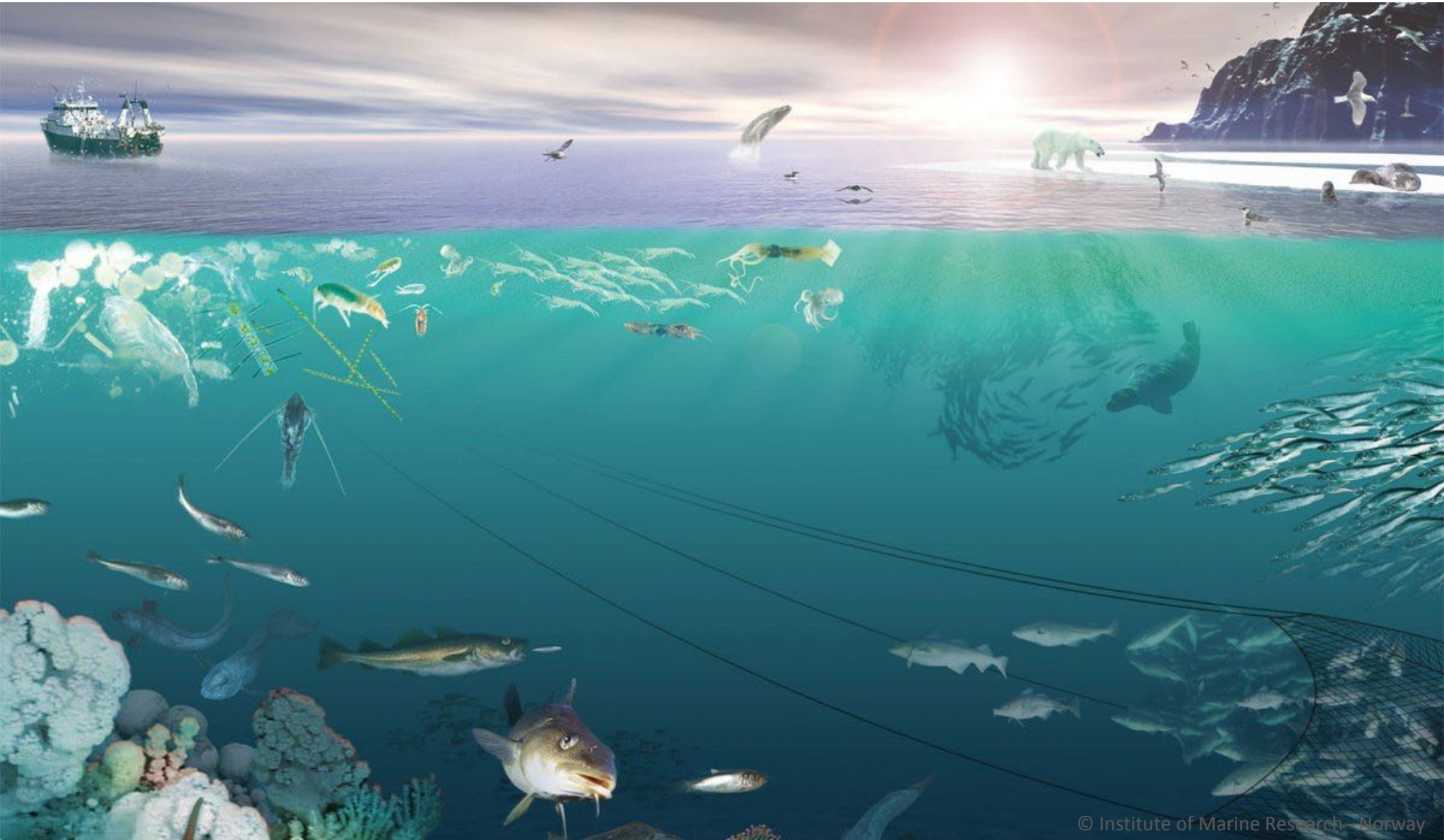# Introduction to the ML4Oceans summer school

Sakina-Dorothée AYATA
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Opportunities to study the oceans using machine learning

Summer school's organisation

<u>Interdisciplinary</u>: Two lectures per day, one from AI experts and one from oceanographers

<u>Target</u>: PhD students and post-docs (22 participants)

	Monday 28th	Tuesday 29th	Wed. 30th	Thursday 1st	Friday 2nd
Morning	Introduction	Genomics	Remote sensing	Plankton imaging	Ecosystem modelling
	Computing environment	Tree-based learning	Neural networks	Transformers	AI-informed physics
Afternoon	*Practical sessions*	*Practical sessions*	*Practical sessions*	*Practical sessions*	*Practical sessions*

Summer school's speakers/teachers/people

Jean-Olivier Irisson

Christophe Prazuck

Xavier Fresquet

Lucie Bittner

Cédric Jamet

Anastase Charantonis

Matthieu Cord

Hugo Touvron

Sakina Ayata

Patrick Gallinari

Rédouane Lguensat

Nora Roger

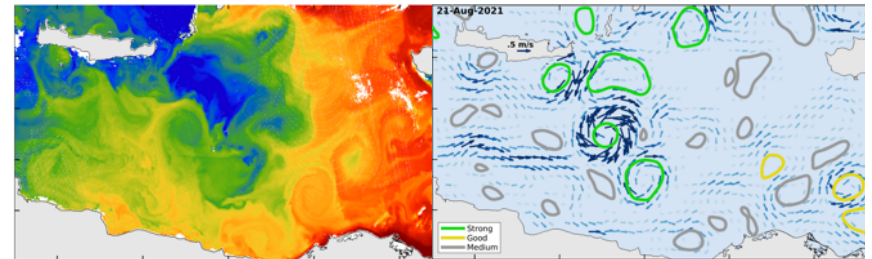# Additional speakers (from the private sector)

Victor Reutenauer

Alexandre Stegner   Evangelos Moschos

Today's programme

9h-9h10:   Presentation of the summer school
9h10-10h10:   Round table/presentation of each participant (~ 2-3 min)
10h10-11h: Computing environment and connexion tests
11h-11h15:   Break
11h15-12h15: Introduction to Python - Part I

12h15-13h45: Lunch break

13h45-14h15: Presentations of the Institute of the Ocean and of SCAI
14h15-15h15: Introduction to Python - Part II
15h15-15h30: Break
15h30-17h: Introduction to Python - Part III

From 17h30: **Social event: Pétanque tournament!**
@ the Arènes de Lutèce, a park nearby the campus.

Potential groups for the practical labs

- Alexandre Barboni / Luis Lau-Medrano
- Laetitia Drago / Raphaël Bajon
- Roy Elhourany / Jie Zhang
- Joseph Jenkins / Thomas Dobbelaere
- Ophélie Meuriot / Qi Zheng
- Pierre Faure--Giovagnoli / Louis Terrats
- Amédée Roy / Perrine Bauchot / Bernabé Moreno
- Louis Serrano / Mamadou Thiam
- Agustin Somacal / Zelu Zhang
- Aishwarya Venkataramanan / Panaïotis Thelma

Presentation in 2-3 minutes:
⇒ First name, Last name
⇒ PhD candidate or post-doctoral researcher?
⇒ Laboratory, City
⇒ Academic background
⇒ Research topic
⇒ Interest for the school