

FRIDAYS AT 16:00 IN 3N01 - ALL ARE WELCOME!

# ECOLOGY & BIODIVERSITY SEMINAR SERIES



**DR. WALTER DELLISANTI**

Walter Dellisanti is a researcher (Marie Curie alumnus) at the University of Copenhagen, Denmark. His work focuses on coral ecophysiology and metabolic responses to environmental conditions. He combines in-situ observation with laboratory measurements of the microenvironment of corals, with the final aim of detecting threshold limits of coral survival.

**Date:** Friday, Dec 5th

**Time:** 16:00

**Venue:** 3N01 + Zoom

*Join us for a social this Wed,  
Dec 3<sup>rd</sup> at ~1730 between  
Central pier 3 & 4 instead!*



Scan this QR  
code to access  
the Zoom link

## Ecophysiology in Climate Change scenarios: from theory to practice

Coral reefs are among the most vulnerable ecosystems to accelerating global change. Rising temperatures, ocean acidification, and deoxygenation are pushing reef communities toward critical tipping points, with recent mass bleaching events highlighting the urgency to understand how corals respond at both organismal and microscale levels. In this lecture, I will provide an overview of current global stressors and emerging climatic thresholds, followed by a research-based exploration of how coral metabolism can be quantified using state-of-the-art laboratory approaches. These include optical and electrochemical microsensors, imaging PAM fluorometry, and micro-optical techniques that resolve oxygen dynamics, photosynthesis, and respiration in unprecedented detail. Drawing on examples from Mediterranean, tropical, and experimental evolution studies, I will discuss how laboratory-based physiology helps predict coral resilience under future scenarios. Finally, I will highlight new perspectives in coral research, spanning symbiont evolution, trace-metal interactions, and the integration of mechanistic understanding into restoration strategies.

