

OCEANOGRAPHY UNVEILED:
VENICE SEMINAR SERIES
AND
SUMMER SCHOOL

Application Deadline: 20 nov 2023
[APPLICATION FORM HERE](#)



A limited number of travel grants for attending the full seminar series are available to master or PhD students

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Organization

Directors:

*Katrin Schroeder and Jacopo Chiggiato
(CNR-ISMAR)*

Chairs of the Scientific Committee:

*Paola Malanotte-Rizzoli (MIT, CNR-ISMAR)
Mario Sprovieri (CNR-ISMAR)*

Members of the Scientific Committee:

*Cosimo Solidoro (OGS)
Angelo Rubino (Università Ca' Foscari)
Piero Lionello (Università del Salento)
Daniele Iudicone (SZN)
Enrico Zambianchi (Università Parthenope)
Maurizio Ribera d'Alcalà (SZN, CNR-ISMAR)*



**Oceanography Unveiled:
Venice Seminar Series and
Summer School**

First Year (2023-2024)



*Geophysical Fluid Dynamics:
fundamental theories of the ocean and
its interactions with the atmosphere*

Seminar 1. Theories of oceanic and atmospheric circulations

Speaker: Joe Pedlosky, WHOI

Date: 6-7 December 2023

Module 1a: The ocean general circulation: the theory of the ventilated thermocline and the associated theory of the Equatorial Undercurrent

Module 1b: Baroclinic instability of a current with development of chaotic shocks according to the Lorenz equations

Seminar 2. The role of turbulence in ocean circulation

Speaker: Alberto Naveiro Garabato, NOC Southampton

Date: 16-17 January 2024

Module 2a: The role of turbulent mixing in driving deep-ocean upwelling

Module 2b: The power of the small: how submesoscale motions shape the ocean's kinetic energy cycle

VENICE SEMINAR SERIES

FIRST YEAR PROGRAMME (2023-2024)

Geophysical Fluid Dynamics: fundamental theories of the ocean and its interactions with the atmosphere

Seminar 3. Dynamics at Ocean Gateways: Straits and Channels

Speaker: Speaker: Harry Bryden, NOC Southampton

Date: 20-21 February 2024

Module 3a: Oceanic Flows Through Straits and Over Sills

Module 3b: Hydraulic control and the Exchange through the Strait of Gibraltar

Seminar 4. Advanced Observation and Predictive Modeling

Speaker: Martin Visbeck, GEOMAR

Date: week 19-24 March 2024

Module 4a: Observing the Atlantic Meridional Ocean Overturning Circulation

Module 4b: Digital Twins of the Ocean - Futureproving Ocean Sustainable Development

Seminar 5. Air-sea interactions and teleconnections

Speaker: Antonio J. Busalacchi, UCAR

Date: April 2024

Module 5a: Air-sea interactions: the exchanges of momentum, heat and freshwater across the interface

Module 5b: El Nino- Southern Oscillation, ocean-atmosphere coupling and interannual variability

Seminar 6. Chaos and its violations

Speaker: Paola Malanotte-Rizzoli, MIT and CNR-ISMAR

Date: May 2024

Module 6a: Lorenz, chaos and predictability

Module 6b: Models of coherent structures in the ocean and atmosphere