

III CEIMAR International Summer School on  
**Estuarine and Nearshore Systems:  
From Fundamentals to Cutting-Edge  
Knowledge**



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# 1 Schedule

## June 6th, Monday

09:30-10:30 *Reception*

10:30-11:20 *Opening*. Miguel Ortega-Sánchez

11:30-12:20 *Beach Classification Models I*. Gerd Masselink

12:30-13:20 *Beach Classification Models II*. Gerd Masselink

13:20-15:00 Lunch Break

15:00-15:50 *Least squares fit of harmonics to velocity time series obtained from moving platforms I*. Arnoldo Valle-Levinson

16:00-16:50 *Least squares fit of harmonics to velocity time series obtained from moving platforms II*. Arnoldo Valle-Levinson

## June 7th, Tuesday

09:00-20:00 Field Trip. *Students' presentations on board* by Fabio Addona, Roséanne Bol, and Klaas Lenstra

## June 8th, Wednesday

09:00-09:30 *Students' presentations*. Jaime Arriaga, Juan del Rosal, and Roeland van de Vijssel

09:30-10:30 *Gravel beaches and barriers I*. Gerd Masselink

10:30-11:20 *Gravel beaches and barriers II*. Gerd Masselink

11:30-12:20 *Least squares fit of harmonics to velocity time series obtained from moving platforms III*. Arnoldo Valle-Levinson

12:30-13:20 *Least squares fit of harmonics to velocity time series obtained from moving platforms IV*. Arnoldo Valle-Levinson

13:20-15:00 Lunch Break

15:00-15:50 *Modelling storm impacts on gravel beaches using XBeach-G I*. Gerd Masselink

16:00-16:50 *Modelling storm impacts on gravel beaches using XBeach-G II*. Gerd Masselink

## June 9th, Thursday

- 09:00-09:30 *Students' presentations.* Encarnación Medina, Johan Damveld, and Juan Luis Garzón Hervas
- 09:30-10:30 *Introductory aspects to estuarine dynamics.* Manuel Díez-Minguito
- 10:30-11:20 *Practice on Tidal response in narrow estuaries of variable cross-section.* Manuel Díez-Minguito
- 11:30-12:20 *XBeach-G practice I.* Rafael J. Bergillos
- 12:30-13:20 *XBeach-G practice II.* Rafael J. Bergillos
- 13:20-15:00 Lunch Break
- 15:00-15:50 *Visit to the IISTA facilities.* María Clavero
- 16:00-16:50 *Visit to the IISTA facilities.* María Clavero

## June 10th, Friday

- 09:00-09:30 *Students' presentations.* María Concepción Calero Quesada, Laura Tommasini, and Sepehr Eslami Arab
- 09:30-10:30 *Basic Ecosystems I.* Javier Ruiz
- 10:30-11:20 *Basic Ecosystems II.* Javier Ruiz
- 11:30-12:20 *Biomorphodynamics of tidal landscapes: mutual interactions and adjustments between physical and biological processes.* Andrea D'Alpaos
- 12:30-13:20 *Tidal network dynamics: field observations, numerical modelling and laboratory experiments.* Andrea D'Alpaos
- 13:20-15:00 Lunch Break
- 15:00-15:50 *Student's presentations.* Ana Cunha, Umberto Andriolo, Stephanie Dohner, Sergio Maldonado-Villanueva, and Gaetano Porcile
- 16:00-16:20 *Student's presentations.* Pim Willemsen, and Rodrigo Mosquera

## June 11th, Saturday

- 09:00-09:30 *Students' presentations.* Caroline Fredriksson, Erika D. Johnson, and Floris de Wit
- 09:30-10:30 *Estuarine Circulation: The relative importance of gravitational circulation and tidal straining.* Henk Schuttelaars

- 10:30-11:20 *Sediment Trapping I: tidal and subtidal dynamics.* Henk Schuttelaars
- 11:30-12:20 *Basic Ecosystems III.* Javier Ruiz
- 12:30-13:20 *Response of salt-marsh platforms to perturbations in environmental forcings.* Andrea D'Alpaos
- 13:20-13:30 Family picture.

## **June 12th, Sunday**

Free

## **June 13th, Monday**

- 09:30-10:30 *Phytoplankton and oxygen dynamics in estuaries: explorative models I.* Huib E. de Swart
- 10:30-11:20 *Phytoplankton and oxygen dynamics in estuaries: explorative models II.* Huib E. de Swart
- 11:30-12:20 *Sediment Trapping II: tidal dynamics and high suspended sediment concentrations.* Henk Schuttelaars
- 12:30-13:20 *Basic Ecosystems IV.* Javier Ruiz

## **June 14th, Tuesday**

- 09:30-10:30 *Turbulence and boundary layer processes in the nearshore I.* Sandro Longo
- 10:30-11:20 *Turbulence and boundary layer processes in the nearshore II.* Sandro Longo
- 11:30-12:20 *Phytoplankton and oxygen dynamics in estuaries: explorative models III.* Huib E. de Swart
- 12:30-13:20 *Phytoplankton and oxygen dynamics in estuaries: explorative models IV.* Huib E. de Swart

## **June 15th, Wednesday**

- 09:30-10:30 *Turbulence and boundary layer processes in the nearshore III.* Sandro Longo
- 10:30-11:20 *Turbulence and boundary layer processes in the nearshore IV.* Sandro Longo

Topics	
I	Beach and Nearshore hydro- and morphodynamics
II	Estuaries hydro- and morphodynamics
III	Ecological modelling
IV	Data analysis of lab and field observations
SP	Students presentations
STW	Students team work

Day	Date	Morning (09:00-09:30)	Morning (09:30-10:30)	Morning (10:30-11:30)	Morning (11:30-12:30)	Morning (12:30-13:30)	Afternoon (15:00-16:00)	Afternoon (16:00-17:00)	
1	June 5th, Sunday		Arrival	Arrival	Arrival	Arrival	Arrival	Arrival	Icebreaker at 20:00
2	June 6th, Monday		Reception	Opening	I	I	IV	IV	
3	June 7th, Tuesday	Field Trip	(SP on board)						Estimated arrival at 20:00
4	June 8th, Wednesday	SP	I	I	IV	IV	I	I	
5	June 9th, Thursday	SP	II	II	I	I	Visit to the IISTA facilities		
6	June 10th, Friday	SP	III	III	II	II	SP	SP	
7	June 11th, Saturday	SP	II	II	III	II	STW	STW	
8	June 12th, Sunday		Free	Free	Free	Free	Free	Free	
9	June 13th, Monday	STW	III	III	II	III	STW	STW	
10	June 14th, Tuesday	STW	IV	IV	III	III	STW	STW	
11	June 15th, Wednesday	STW	IV	IV	STW	STW	STW	STW	
12	June 16th, Thursday	STW	STW	STW	STW	STW	STW	STW	
13	June 17th, Friday	SP	SP	SP	SP	SP	Farewell	Farewell	

## June 17th, Friday

09:00-13:30 Short projects' presentations

13:30-13:40 Closing and farewell

## 2 Timetable

See table above.

## 3 Short projects

### Measuring water level and fluid velocity under waves

- Students: Juan del Rosal, Johan Damveld, Rodrigo Mosquera, and Floris de Wit.
- Supervisors: Sandro Longo and Luca Chiapponi.

### **The role of complex inner shelf bathymetries on nearshore processes**

- Students: Klaas Lenstra, María Concepción Calero Quesada, and Gaetano Porcile.
- Supervisors: Miguel Ortega-Sánchez, Rafael J. Bergillos.

### **Linear and nonlinear tidal resonance in co-oscillating tidal basins**

- Students: Fabio Addona, Encarnación Medina, and Stephanie M. Dohner.
- Supervisors: Henk M. Schuttelaars, Huib E. de Swart, and Miguel Ángel Reyes-Merlo.

### **Estuarine turbidity maxima formation in estuaries**

- Students: Sepehr Eslami Arab, Umberto Andriolo, and Erika D. Johnson.
- Supervisors: Henk M. Schuttelaars and Manuel Díez-Minguito.

### **Processing of towed ADCP data from repeated transects to separate tidal and nontidal signals**

- Students: Roeland van de Vijssel, Ana Cunha, and Caroline Fredriksson.
- Supervisors: Arnoldo Valle-Levinson.

### **River flow influence on the tidal and subtidal hydrodynamics**

- Students: Jaime Arriaga, Laura Tommasini, and Pim Willemsen.
- Supervisors: Manuel Díez-Minguito and Javier Ruiz.

### **Hydrodynamics and sediment transport processes in a constricted bay**

- Students: Roséanne Bol, Juan Luis Garzón Hervas, and Sergio Maldonado-Villanueva.
- Supervisors: Andrea D'Alpaos and Carmen Zarzuelo.

## 4 Period of stay of lecturers and supervisors

Lecturer/Day	5	6	7	8	9	10	11	12	13	14	15	16	17
A. D'Alpaos				X	X	X	X						
A. Valle-Levinson	X	X	X	X	X	X	X	X	X				
C. Zarzuelo	X	X	X	X	X	X	X	X	X	X	X	X	X
G. Masselink	X	X	X	X	X								
H.M. Schuttelaars					X	X	X	X	X	X			
H.E. de Swart									X	X	X	X	X
J. Ruiz						X	X	X	X	X			
L. Chiapponi							X	X	X	X	X		
M. Clavero	X	X	X	X	X	X	X	X	X	X	X	X	X
M. Díez-Minguito	X	X	X	X	X	X	X	X	X	X	X	X	X
M.A. Reyes-Merlo	X	X	X	X	X	X	X	X	X	X	X	X	X
M. Ortega-Sánchez	X	X	X	X	X	X	X	X	X	X	X		
R. J. Bergillos	X	X	X	X	X	X	X	X	X	X	X	X	X
S. Longo							X	X	X	X	X		

## 5 List of participants

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