



**Mediterranean–Atlantic Gateway Exchange  
International Ocean Discovery Program (IODP)  
Expedition 401  
Post-cruise Meeting  
20<sup>th</sup> -22<sup>nd</sup> April 2026**

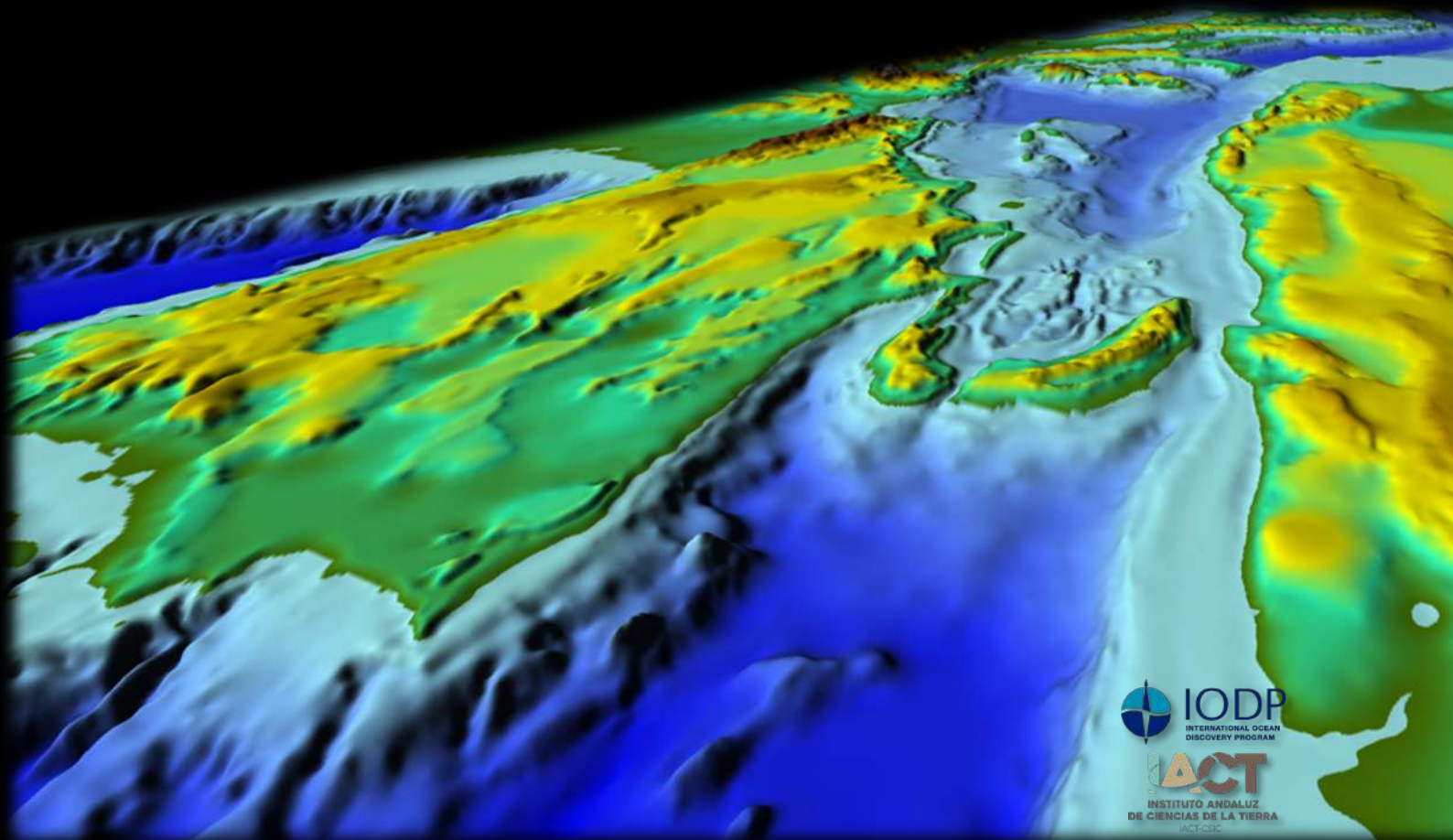


Figure from Romain Pellen (IFREMER - GM-LGS, France)



## **Mediterranean–Atlantic Gateway Exchange IODP Expedition 401 Post-cruise Meeting 20<sup>th</sup> -22<sup>nd</sup> April 2026**

The International Ocean Discovery Program (IODP) **Expedition 401 Post-cruise Meeting** will be in Granada (Andalucía, Spain) on the 20th, 21st and 22nd April 2026. Its main aims are to share, discuss and integrate post-cruise research results, foster collaboration, plan work required to finalize publications, and define additional research required to meet expedition science objectives and future research projects.

The schedule for the meeting includes three days for presentations and discussions. The main objectives of the Mediterranean-Atlantic Gateway Exchange expedition will be covered, which were,

- to recover a complete record of Atlantic-Mediterranean exchange before, during, and after the Messinian Salinity Crisis (MSC; 5.97-5.33 Ma),
- to evaluate the environmental causes and consequences of this extreme oceanographic event locally, regionally, and globally,
- to test our quantitative understanding of the behaviour of ocean overflow plumes during the most extreme exchange in Earth's history.

### **Venue**

The meeting will be held at the **Parque de las Ciencias** (Science Park) in the *Tecnoforo Hall* (<https://www.parqueciencias.com/>).



### **Scientific program**

Presentations will be organized into thematic science blocks corresponding to the results from the following drilling sites: Southwest Portugal (U1609, U1385), the Gulf of Cádiz (U1610), and the Alborán Sea (U1611). These sessions will include research updates in the areas of sedimentology and lithostratigraphy; paleontology, biostratigraphy, and paleoceanography; geochemistry; paleomagnetism; physical properties; downhole logging; stratigraphic correlation; and seismic interpretation and site-to-site correlation. In addition, dedicated blocks will be included for integrative work and for focused discussions within working groups.

# IODP Expedition 401 Post-cruise Meeting, 20<sup>th</sup> -22<sup>nd</sup> April 2026

	18 <sup>th</sup>	19 <sup>th</sup>	20 <sup>th</sup>	21 <sup>st</sup>	22 <sup>nd</sup>	23 <sup>rd</sup>	24 <sup>th</sup>	25 <sup>th</sup>
		<i>Field day</i>	<i>Meeting days</i>			<i>Field day</i>	<i>Field day</i>	
8:30-8:40	<i>Travel to Malaga airport</i>	<i>Pre-MSC</i>  <i>Guadalquivir Basin</i>  (Porcuna outcrops) & <i>Betic Corridor</i>  (Zagra-Fuentes de Cesna outcrops)	Opening welcome			<i>MSC</i>  <i>Sorbas Basin</i> (Los Molinos del Rio Aguas/Abad Fm / Gypsum/Lago Mare)	<i>MSC &amp; post-MSC</i>  <i>Nijar Basin</i> (Los Feos / Gafares)	
8:45 – 9:15			<i>Keynote: A bluffers guide to the MOW</i>	<i>Keynote: What is driving the MOW in the Messinian?</i>	<i>Keynote: Late Miocene to Pliocene sedimentation</i>			
9:15 – 10:30			SW Portugal	Mediterranean	Working groups summary presentations & discussions			
10:30-11:00			<i>Coffee break &amp; Poster</i>					
11:00- 13:00			SW Portugal	Mediterranean	Final general discussion & future plans			
13:00-14:00			<i>Lunch</i>					
14:00 – 16:00			Gulf of Cádiz	Integrative work	<i>Coach to Agua Amarga</i>			
16:00 -16:30			<i>Coffee break &amp; Poster</i>					
16:30 – 17:00			Gulf of Cádiz	<i>IMMAGE ICDP drilling: updates</i>	<i>Pre- &amp; Post-MSC Betic Corridor</i> (La Lancha, Guadix)			
17:00 – 17:30			<i>Keynote: Looking for clues to paleo-overflows imprints: A diagnosis of the Gulf of Cadiz Messinian contourites</i>	Working groups discussions (X401 + IMMAGE/ICDP ± SALT meeting + publications)				
17:30 – 18:30	<i>Group: meeting point at 17:30</i>		<i>Posters (1 h)</i>					
18:00-19:30	<i>Coach to Granada</i>				<i>Coach to Agua Amarga (19:00 – 20:30)</i>	<i>Workshop (1h) Sorbas Core</i>		
20:00-21:00		<i>Dinner</i>	<i>Reception – Carmen de la Victoria</i>	<i>Dinner</i>		<i>Group dinner Best Paella ever!</i>	<i>Dinner</i>	
				<i>Night visit to the Alhambra</i>				
<i>Hotels</i>		Hotel in <b>Granada</b> (4 nights)			Apartments in <b>Agua Amarga</b> , Almeria (2 nights)		Hotel in <b>Malaga</b> (1 night)	

Travel back from Malaga airport

Agenda and scientific program for the IODP Expedition 401 Post-cruise Meeting



## Attendees

- Shipboard and shore-based scientists associated to the IODP Expedition 401.
- Researchers from the IMAGE (*Investigating Miocene Mediterranean-Atlantic Exchange*) Land-2-Sea partnership.
- Students and collaborators linked to the above groups.

## Oral & Poster presentations

Participants will have the opportunity to present their work in both oral and poster formats. To encourage active discussion and interaction, the time allocated for oral presentations will be limited. Each talk will be scheduled in a 15-minute time slot.

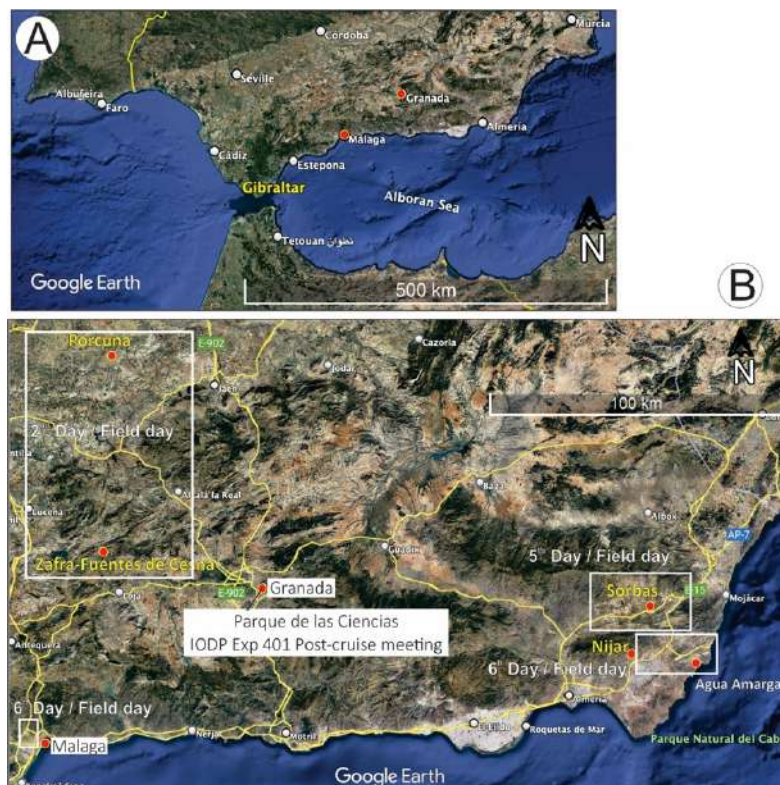
## Special keynotes

Four invited talks of 30' are scheduled for the meeting, and will address the following themes:

- **A bluffers guide to the Mediterranean Outflow**, by Michael Rogerson (*Northumbria Univ., UK*).
- **Looking for clues to paleo-overflows imprints: A diagnosis of the Gulf of Cadiz Messinian contourite depositional systems**, by F. Javier Hernández-Molina (*IAC-CSIC, Spain*).
- **What is driving the Mediterranean Outflow Water in the Messinian?**, by Francisco J. Sierro (*Salamanca Univ., Spain*).
- **Late Miocene to Pliocene sedimentation in the Alboran Sea, Gulf of Cadiz and West Portugal**, by Emmanuele Ducassou (*Bordeaux Univ., France*).

## Abstract submission

The final deadline for abstract submission (to [fj.h@csic.es](mailto:fj.h@csic.es)) is **20 February 2026**. Abstracts must be written in English and should be approximately 500 words in length. Authors are required to submit their manuscripts in single-spaced text, using 10-point Arial font.



Map indicating IODP Expedition 401 post-cruise Meeting locations, including the fieldtrip days.

### Field trip (Optional)

Hosting the meeting in Granada, in southern Spain, provides an excellent opportunity for a field trip to observe late Miocene and early Pliocene deposits that exhibit sedimentary facies comparable to those recovered during IODP Expedition 401. The field excursion will include visits to the following locations:

**Pre-meeting field day** (19<sup>th</sup> April) – Pre-MSC deposits of the Guadalquivir Basin (Porcuna outcrops) and the Betic Corridor (Zagra-Fuentes de Cesna outcrops). These sites provide Late Miocene pre-MSC examples of hemipelagic, gravity-driven and bottom-current deposits.

### Post-meeting field days (22<sup>nd</sup>, 23<sup>rd</sup> & 24<sup>th</sup> April)

*22<sup>nd</sup> afternoon.* The field trip will then continue toward Agua Amarga (Almería), with planned stops at the pre- and post-MSC deposits exposed in La Lancha (Dehesas de Guadix).

*23<sup>rd</sup> April – Sorbas Basin.* The field excursion will focus on *Messinian Salinity Crisis* deposits of the Sorbas Basin, including pre-evaporitic marls, evaporitic gypsum, and Lago Mare deposits. These outcrops provide an opportunity to examine Tortonian and Messinian sedimentation — including the full MSC interval — in a marginal basin setting, and to discuss correlations with both the Atlantic and Mediterranean basins.

*24<sup>th</sup> April – Níjar Basin and Miocene–Pliocene boundary.* The final day will feature visits to MSC and post-MSC deposits of the Níjar Basin, including the Miocene–Pliocene boundary at Los Feos / Gafares. On the return route toward Málaga, additional stops will be made to observe Lago Mare and Pliocene deposits. One of the outcrops is located only a few kilometres north of Site U1611 and documents the termination of the Messinian Salinity Crisis, offering a unique opportunity to directly relate field observations to the drilling record.



*Late Miocene large dunes from the “Dehesas de Guadix” corridor (see Martín et al., 2014, Rev. Soc. Geol. España 27, 1: 175-186).*



**Accommodation in Almería** (22<sup>nd</sup> & 23<sup>rd</sup> April) – Accommodation will be provided in apartments in the village of Agua Amarga on 22 and 23 April (CostaAmarga Apartments, <http://costamarga2002.es> ). The location is approximately 30 minutes from the Sorbas Basin outcrops and 15 minutes from the Níjar Basin outcrops. The facility offers a group meeting room with projection equipment, as well as on-site catering, including breakfast, packed field lunches, and dinner.



*Agua Amarga (Almería)*

### Social Events

- 20<sup>th</sup> April. Reception – Carmen de la Victoria / <https://carmendelavictoria.ugr.es>
- 21<sup>st</sup> April. Alhambra night tour
- 23<sup>rd</sup> April (Field Trip). Dinner (seafood & vegetarian paella) at Agua Amarga (Almería)

### Registration and fees

Registration and fees will be different for the Granada meeting and the field trip.

	Granada meeting	Field trip
Senior researchers	350 €	350 €
Students/PhDs/postdocs	250 €	250 €

### Deadline for registration

Registration for the meeting and field trip must be completed through the Technical Secretariat by 27 February 2026 using the following link:

👉 [https://www.starplanning.es/iodp\\_expedition\\_401\\_postcruisemeeting/](https://www.starplanning.es/iodp_expedition_401_postcruisemeeting/)

### Technical secretariat

#### Startplanning

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### Meeting hosts & organizers

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