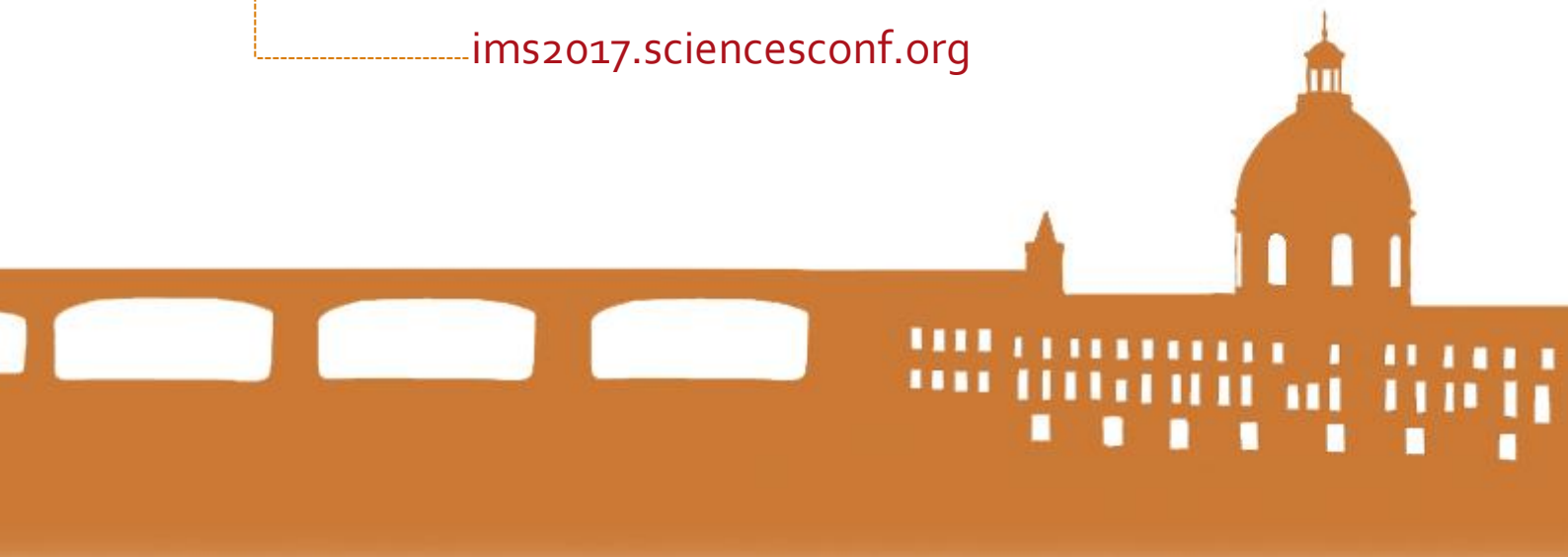


Detailed list of excursions

October 10-12, 2017
Toulouse, France

ims2017.sciencesconf.org





PRE-MEETING FIELD TRIPS

3

- FT1 THE EOCENE MARINE SEDIMENTATION IN THE SOUTHERN PYRENEAN BASIN: A BASIN-SLOPE-PLATFORM TRANSECT 3
- FT2 SEISMIC-SCALE FLUID MIGRATION FEATURES IN A PASSIVE MARGIN SETTING. OUTCROP ANALOGUES FROM THE MESOZOIC SE FRANCE BASIN 4
- FT3 THE BAY OF MONT SAINT MICHEL. FACIES, MORPHODYNAMICS AND HOLOCENE EVOLUTION OF A HYPERTIDAL COASTAL ENVIRONMENT 4
- FT4 ESTUARINE, COASTAL MARINE FACIES AND GEOBODIES ARCHITECTURE IN THE GIRONDE ESTUARY AND THE ATLANTIC COAST (SW FRANCE) 4
- FT5 FORELAND BASIN EVOLUTION IN THE SOUTHERN PYRENEES (ARAGON, SPAIN) 5
- FT6 DEPOSITIONAL CONTROLS ON MARINE SOURCE ROCKS: IMPACT IN CONVENTIONAL AND UNCONVENTIONAL PETROLEUM SYSTEMS (LOWER JURASSIC OF THE CANTABRIAN REGION, NORTH SPAIN) 5
- FT7 GEOLOGICAL WALK IN TOULOUSE 5



POST-MEETING FIELD TRIPS

6

- FT8 LACUSTRINE CARBONATE-EVAPORITE SERIES IN RIFT BASIN: FACIES, ARCHITECTURES, CONTROLS ON SEDIMENTATION AND TECTONIC EVOLUTION 6
- FT9 THE PYRENEES: FROM THE CRETACEOUS INNER TROUGH TO THE ALPINE FORELAND BASINS. THE TECTO-SEDIMENTARY EVOLUTION OF THE OROGEN PRESENTED ALONG 2 SECTIONS CROSSING THE CENTRAL PART OF THE BELT 6
- FT10 GEOLOGY AND BORDEAUX WINES 6
- FT11 FROM SYN-RIFT TO SAG, EOCENE-OLIGOCENE TECTONO-STRATIGRAPHY OF THE SOUTHERN UPPER RHINE GRABEN (URG, FRANCE, GERMANY, SWITZERLAND). AN ANALOG FOR MULTISEGMENTED INTRA-CONTINENTAL RIFT BASINS 6
- FT12 ILERDIAN SEDIMENTATION THROUGH THE CARCASSONNE GULF (CORBIERES, FRANCE) 6
- FT13 ARCHITECTURE AND EVOLUTION OF A SYNTECTONIC RIVER-DOMINATED DELTA: THE MIDDLE EOCENE SOBRARBE DELTAIC COMPLEX (SOUTH-PYRENEAN FORELAND BASIN, ARAGON, SPAIN) 7
- FT14 QUATERNARY TERRACES ALONG THE ARIEGE AND GARONNE RIVERS SOUTH OF TOULOUSE 7
- FT15 PRE- TO SYN-OROGENIC TECTONICS-SEDIMENTATION RELATIONSHIPS IN THE EASTERN NORTH-PYRENEAN FORELAND 7
- FT16 SOIL *TERROIR* AND WINE IN THE GAILLAC APPELLATION (SE FRANCE) 7

A wide range of field excursions are offered to the registered participants who make also a pre-payment, with 7 pre-meeting and 9 post-meeting excursions. The trips require a minimum of 1–20 participants and can accommodate up to a maximum of 9–60 participants. Except for some field excursions **FT1**, **FT3**, **FT4**, **FT6**, **FT10** and **FT11**, all the other excursions will start and end in Toulouse.



Important notes regarding field trips

- The capacity of field trips is limited and will be filled on a first-come first-served basis. Registrations to the field trips must happen with the registration to the conference. The payment will be delayed the time we are sure that the chosen field trip reaches sufficient participants to be opened. We will then request full payment. (A waiting list will possibly be made, and the organizers will inform you if a place becomes available.)
- Trips may be cancelled if under-subscribed. Before purchasing non-refundable travel tickets, please ask the organizers for confirmation that the trip will actually take place.
- In some of the hotels used for excursions, single-bed rooms may be few or unavailable. Please specify your preference in the registration form, if asked, as shared double- or triple-bed rooms are always much less expensive.
- Several weeks prior to the excursion, you will receive information with details of the meeting points, transportation during the trip, phone number and email address of excursion leaders.
- Proper clothing and usual accessories are needed for the excursions (i.e., mountain boots, hat, raining clothes, backpack, ...).
- Trips will be held in various areas, from the seashore to the mountains, and the participants are advised to check the local weather forecasts.
- Neither the organizers nor the field excursion leaders can offer insurance covering illness or injury for individuals.

Following is the list of the excursions pre- and post-meeting.

Pre-meeting field trips

- **FT1 THE EOCENE MARINE SEDIMENTATION IN THE SOUTHERN PYRENEAN BASIN: A BASIN-SLOPE-PLATFORM TRANSECT**

Leaders. Roi Da SILVA-CASAL (University of Zaragoza, ESP), Aitor PAYROS (University of the Basque Country, ESP), Naroa MARTÍNEZ-BRACERA (University of the Basque Country, ESP), Marcos Aurell (University of Zaragoza, ESP)  

Duration. 3 days (Oct. 7th-9th)

Number of participants. min 20, max 30

Cost. 445€ (double room) & 520€ (single room) including transportation, accommodation, breakfast, field lunches and dinners

Departure. Plaza Federico Moyua 7, 48009 Bilbao (at the bus stop in front of the Deutsche Bank office), Saturday October 7th, at 8:30 a.m.

Return. Congress Center Pierre Baudis (Toulouse), Monday October 9th, at 07:00 p.m.

Transportation. Bus

Description. This field trip will allow a close examination of the sedimentary facies and architecture of the depositional systems developed from deep-sea basin to carbonate slope and shallow-water platform of the Southern Pyrenean basin in Eocene times. In addition, the progressively changing role of several controlling factors, such as climate and tectonism, will be analyzed.

The first day will be dedicated to basinal deposits exposed in coastal cliffs near Bilbao (western Pyrenees). The >2300-m-thick lower/middle Eocene succession is mainly composed of hemipelagic carbonate deposits and siliciclastic turbidites. Deep-marine sedimentation was generally controlled by climate, as shown by the accumulation of submarine fan turbidites in cool conditions, the dominance of hemipelagic sedimentation in warmer conditions, and the peculiar characteristics of the deposits accumulated during the EECO (Early Eocene Climatic Optimum). Astronomically driven, short-term climate change (Milankovitch cycles) determined the characteristics of both the hemipelagic deposits and the distal submarine fan turbidites. The early-middle Eocene times were punctuated by several short-lived episodes of extreme global warming (i.e., the so-called hyperthermal events, such as the PETM, Paleocene-Eocene Thermal Maximum), the depositional features of some of which will also be analyzed. In addition, the GSSP (Global Stratotype Section and Point) for the base of the Lutetian Stage (middle Eocene) will be visited and its chronostratigraphic relevance discussed.

The second day will begin in the Otsakar section near Pamplona (western Pyrenees). The lower/middle Eocene carbonate slope succession is composed of hemipelagic limestone/marl alternations and calciclastic turbidites (Anotz Fm), which accumulated in one of the few carbonate submarine fans described so far in geological literature. Interestingly, the succession can be readily correlated with the basinal section both at large-scale and bed-to-bed scale. Subsequently, we will move to the shallow-water Guara Fm exposed in the La Peña reservoir and Murillo de Gállego (Zaragoza province, central Pyrenees). Middle-upper Eocene (Lutetian-Bartonian) carbonate platforms are superbly exposed in the Sierras Exteriores area (i.e., the Guara and Arguis formations). The outcrops of the Guara Formation allow understanding the distribution of key skeletal grains across the different facies belts giving rise the Lutetian carbonate platform.

The third day will be focused on the Bartonian deltaic system, the associated carbonate buildups, and carbonate ramp deposits. The Lutetian carbonate platform (Guara Fm) was drowned at the onset of the Bartonian, involving the widespread sedimentation of outer platform and prodelta marls (Arguis Formation), laterally related to a delta front (Belsue – Atarés Fm) and fluvial facies (Campodarbe group) towards the east, on a broader deltaic system. Marly sedimentation was punctuated by the episodic shallow carbonate platform progradation during stages of tectonic quiescence, including a last stage with development of mesophotic coral buildups in a prodelta setting. We will visit those mesophotic buildups near the locality of Rasal, as well as a bryozoan-dominated middle ramp deposits. The fieldtrip will conclude with a panoramic overview of the whole system from Pico del Águila.

- **FT2 SEISMIC-SCALE FLUID MIGRATION FEATURES IN A PASSIVE MARGIN SETTING. OUTCROP ANALOGUES FROM THE MESOZOIC SE FRANCE BASIN**

Leaders. Jean-Philippe BLOUET (University of Fribourg, CHE), Patrice IMBERT (TOTAL, FRA), Sutieng HO (National Taiwan University, TWN)

CANCELLED

- **FT3 THE BAY OF MONT SAINT MICHEL. FACIES, MORPHODYNAMICS AND HOLOCENE EVOLUTION OF A HYPERTIDAL COASTAL ENVIRONMENT**

Leaders. Bernadette TESSIER (UMR M2C CNRS-University of Caen Normandie, FRA), Pierre WEILL (UMR M2C CNRS-University of Caen Normandie, FRA), Jérôme FOURNIER (MNHN Concarneau, FRA), Bruno CALINE (TOTAL, FRA), Isabelle BILLEAUD (TOTAL, FRA) ✉

Duration. 2 days (October, 8th-9th)

Number of participants. min 10, max 20

Cost. 300€, including transportation during the field trip (from Rennes to Rennes), accommodation, breakfast, field lunches (2) and dinner (1), guide-book

Departure. Rennes Train Station, Sunday October 8th, at 8:00 a.m. (There are direct flights from Toulouse to Rennes, or direct trains -TGV- from Paris. Participants are advised to arrive in Rennes the day before)

Return. Rennes Airport; Monday October 9th, at 6:00 p.m. (There are direct flights from Rennes to Toulouse – last flight on Monday 6:50 p.m.)

Transportation. Bus

Description. The Bay of Mont-Saint-Michel, located between Normandy and Brittany (NW France) is known all over the world through its highly touristic *Mont-Saint-Michel* and its tidal range, up to 15 m. The aim of this 2-days field trip is to examine the different sedimentary environments, which compose this hypertidal coastal system (in the west, a tide-dominated wave-influenced embayment characterized by wide tidal flats, and bioclastic ridges; In the east, a tide-dominated estuary, with typical tidal facies, especially tidal rhythmites; In the NE, a wave-dominated shoreline with sandspits bordering the high energy estuarine tidal channels. A spectacular reef made by worms develops on the rocky substrate outcropping in this northern entrance of the Bay). Hydrodynamics, sedimentary facies and sequences, Holocene infill and evolution will be discussed through field observations, core, VHR seismic and GPR data. The field trip includes a sightseeing tour of Mont Saint-Michel, and an overview of Norman gastronomy!

- **FT4 ESTUARINE, COASTAL MARINE FACIES AND GEOBODIES ARCHITECTURE IN THE GIRONDE ESTUARY AND THE ATLANTIC COAST (SW FRANCE)**

Leaders. Hugues FÉNIÈS (Ensegid-Bordeaux INP, FRA), Raphaël BOURILLOT (Ensegid-Bordeaux INP, FRA), Maxime VIROLLE (University Paris Saclay, FRA) ✉

Duration. 2 days (Oct. 7th-8th)

Number of participants. max 9

Cost. €420, including transportation, field guide, 1 hotel night with breakfast (Oct. 7th), 2 field lunches (Oct. 7th-8th), 1 dinner in a restaurant downtown Bordeaux (Oct. 7th), 1 wine tasting session at Château Tayac. Transportation to Gradignan and return from Gradignan to Toulouse are not included in the price; nor than any additional dinners and hotel nights.

Departure. At the reception desk of the hotel *Le Châlet Lyrique*, on Saturday October 7th, at 12:00 a.m. (Possible free pick up of the participants at the airport or the railway station, on the morning of Oct. 7th, before 11:30 a.m. on request)

Return. at the hotel “Le Châlet Lyrique”, on Sunday October 8th, at 6:00 p.m. (Possible free transfer of the participants to the airport or railway station, on the evening of Oct. 8th, after 6:00 p.m. on request)

Transportation. Bus & boat

Accommodation. 3-stars Hôtel Le Châlet Lyrique (Gradignan village, near Bordeaux, France)

Description. On the first day, the field trip will visit the Gironde estuary, a worldwide reference model for tide-dominated estuaries and will focus on heterolithic estuarine point bars and tidal bars, deposited within the

turbidity maximum zone (TMZ). Participants will be transferred by boat on the Plassac tidal bar and detailed facies analysis will be performed based on field observations and trenches. The reservoir heterogeneity of heterolithic point bars and tidal bars will be presented, thanks to numerous cores and very high resolution seismic lines. In addition, the petrology of these estuarine facies will also be presented through thin sections and SEM–EDS data, with a special focus on the clay mineral aggregates coating the quartz grains.

On the second day, the field trip will visit the Atlantic wave-dominated coast and will focus on the facies, reservoir heterogeneity and geometry of the beach and shoreface deposits, thanks to large-size shoreface cores preserved in epoxy. The sequence stratigraphic model of the Gironde incised valley will also be presented through to very high resolution seismic lines.

- **FT5 FORELAND BASIN EVOLUTION IN THE SOUTHERN PYRENEES (ARAGON, SPAIN)**

Leaders. Antonio TEIXELL (*Universitat Autònoma of Barcelona, ESP*), Antonio BARNOLAS (*Independent Consultant, Madrid, ESP*), Pierre LABAUME (*University of Montpellier 2, FRA*), Marta ROIGE (*Universitat Autònoma of Barcelona, ESP*)

CANCELLED

- **FT6 DEPOSITIONAL CONTROLS ON MARINE SOURCE ROCKS: IMPACT IN CONVENTIONAL AND UNCONVENTIONAL PETROLEUM SYSTEMS (LOWER JURASSIC OF THE CANTABRIAN REGION, NORTH SPAIN)**

Leader. Santiago QUESADA (*REPSOL, ESP*)

CANCELLED

- **FT7 GEOLOGICAL WALK IN TOULOUSE**

Leaders. Frédéric CHRISTOPHOU (*University of Toulouse III - GET, FRA*), Stéphane BONNET (*University of Toulouse III - GET, FRA*), Michel de SAINT BLANQUAT (*CNRS - GET, FRA*), Vincent Regard (*University of Toulouse III - GET, FRA*)

✂

Duration. 3-4h. (Oct. 9th)

Number of participants. min 1, max 60 (groups of 15)

Cost. 12€, including field guide

Departure. Starting point at Capitole Place (Toulouse), Monday October 9th, at 01:30 p.m. (group 1), at 01:45 p.m. (group 2), at 02:00 p.m. (group 3), at 02:15 p.m. (group 4)

Description. The city of Toulouse owns an impressive built heritage due to its long history since the roman times, through middle age, modern period until nowadays. This walk in the streets of Toulouse will present the iconic monuments in their historic context through the geological materials used for their building, approaching the local geological context, material availability and constraints. The end of the walk, along the Garonne river docks will allow to present of the geomorphological context of the river terraces and their consequences on the control of historical extreme floods.



Post-meeting field trips

- **FT8 LACUSTRINE CARBONATE-EVAPORITE SERIES IN RIFT BASIN: FACIES, ARCHITECTURES, CONTROLS ON SEDIMENTATION AND TECTONIC EVOLUTION**

Leaders. Francois FOURNIER (University of Aix-Marseille, FRA), Youri HAMON (IFP Energies Nouvelles, FRA), Michel SÉRANNE (University of Montpellier 2, FRA)

CANCELLED

- **FT9 THE PYRENEES: FROM THE CRETACEOUS INNER TROUGH TO THE ALPINE FORELAND BASINS. THE TECTO-SEDIMENTARY EVOLUTION OF THE OROGEN PRESENTED ALONG 2 SECTIONS CROSSING THE CENTRAL PART OF THE BELT**

Leaders. Joseph CANEROT (University of Toulouse III - GET, FRA), Francis MEDIAVILLA (AGSO Bordeaux, FRA)

CANCELLED

- **FT10 GEOLOGY AND BORDEAUX WINES**

Leader. Jean-Pierre TASTET (University of Bordeaux, FRA), CAP Terre

CANCELLED

- **FT11 FROM SYN-RIFT TO SAG, EOCENE-OLIGOCENE TECTONO-STRATIGRAPHY OF THE SOUTHERN UPPER RHINE GRABEN (URG, FRANCE, GERMANY, SWITZERLAND). AN ANALOG FOR MULTISEGMENTED INTRA-CONTINENTAL RIFT BASINS**

Leaders. Stephane ROUSSE (Beicip-Franlab, FRA), Philippe DURINGER (University of Strasbourg, FRA)

CANCELLED

- **FT12 ILLERDIAN SEDIMENTATION THROUGH THE CARCASSONNE GULF (CORBIÈRES, FRANCE)**

Leader. Marc de RAFÉLIS (University of Toulouse III - GET, FRA) ✎

Duration. 1 day (Oct. 13th)

Number of participants. min 6, max 16

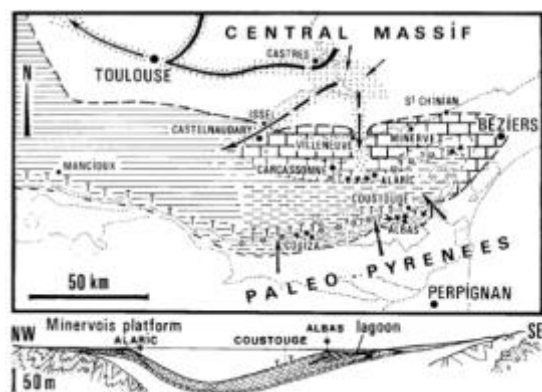
Cost. 60€ including transportation, field lunch

Departure. Congress Center Pierre Baudis (Toulouse), Friday October 13th

Return. Congress Center Pierre Baudis (Toulouse), Friday October 13th

Transportation. Bus

Description. Ilerdian (upper Thanetian/lower Ypresian) deposits in the Carcassonne basin correspond to the last marine incursion into the gulf before the sea withdraws toward the west. There, a carbonate shelf is well developed in the northern regions and is mainly connected with the Montagne Noire with two main deltas (Issel and Villeneuve, Alaric mountain). In southern part, sedimentation is mainly detritic (sands and marls, Coustouge section) and potential sources come from the Nappe des Corbières (Paleo-Pyrénées). During Ilerdian stage, Solenomeris patch reefs (local geological curiosity) appear in both sides of the basin and will be observed at the Alaric mountain.



Reconstruction of the Languedoc Gulf during the middle Ilerdian (Plaziat & Perrin, 1992)

- **FT13 ARCHITECTURE AND EVOLUTION OF A SYNTECTONIC RIVER-DOMINATED DELTA: THE MIDDLE EOCENE SOBRARBE DELTAIC COMPLEX (SOUTH-PYRENEAN FORELAND BASIN, ARAGON, SPAIN)**

Leaders. Nicolas GRASSEAU (Ensegid-Bordeaux INP, FRA), Philippe RAZIN (Ensegid-Bordeaux INP, FRA), Miguel LÓPEZ-BLANCO, (University of Barcelona, ESP), Francis Odonne (University of Toulouse III - GET, FRA) ✉

Duration. 3 days (Oct. 13th-15th)

Number of participants. min 8, max 24

Cost. Between 300 and 340€ depending on the number of participants, all inclusive

Departure. Congress Center Pierre Baudis (Toulouse), Friday October 13th

Return. Congress Center Pierre Baudis (Toulouse), Sunday October 15th

Transportation. Bus

Description. This three-day fieldtrip will focus on the first regressive unit of the Ainsa piggy-back subbasin, part of South-Pyrenean foreland basin, mainly characterized by the Middle Eocene Sobrarbe deltaic complex deposits. The aim of the trip is to describe the stratigraphic and sequential architecture of syntectonic river-dominated deltaic system. We will identify different facies associations from alluvial plain to deep-water basin environments; observe their spatial, geometric, and temporal relationships from the 5th to 3rd order of sequences; and discuss about potential forcing parameters for each sequential order. We will examine world-class outcrops of Sobrarbe deltaic complex in Spanish Pyrenees between the town of Mondot and the city of Ainsa.

- **FT14 QUATERNARY TERRACES ALONG THE ARIÈGE AND GARONNE RIVERS SOUTH OF TOULOUSE**

Leaders. Vincent REGARD (University of Toulouse III - GET, FRA), Magali DELMAS (University of Perpignan-Via Domitia, FRA), Emmanuel CHAPRON (University of Toulouse II - GEODE, FRA)

CANCELLED

- **FT15 PRE- TO SYN-OROGENIC TECTONICS-SEDIMENTATION RELATIONSHIPS IN THE EASTERN NORTH-PYRENEAN FORELAND**

Leaders. Frédéric CHRISTOPHOUL (University of Toulouse III - GET, FRA), Mary FORD (CRPG Nancy, FRA)

CANCELLED

- **FT16 SOIL TERROIR AND WINE IN THE GAILLAC APPELLATION (S FRANCE)**

Leaders. Priscia OLIVA, Eva SCHREC, Stéphane AUDRY, Simon BLOTEVOGEL and Pierre COURJAULT-RADÉ (University of Toulouse III - GET, FRA)

CANCELLED