

PAGES Morillo de Tou 2017
3rd Young Scientists Meeting

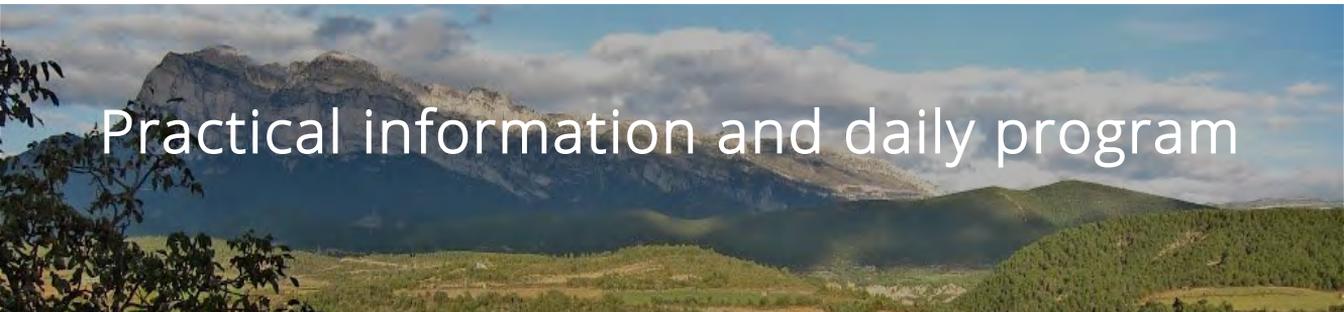
Global Challenges for our Common Future:
a paleoscience perspective

3rd Young Scientists Meeting
7-9 May 2017
Morillo de Tou (Spain)

PAGES
PAST GLOBAL CHANGES



Practical information and daily program





Map of Morillo de Tou with main venues for YSM 2017 (click to open the map in the Open Street Map website)

1. **Reception:** registration will take place here
2. **Casa Forestal:** hostel where some participants will be assigned. Luggage can be left here upon arrival and departure in a locked room. Meeting rooms for breakout groups are also in Casa Forestal: **Aula Nueva: Room 3, Aula Antigua: Room 4, Oficina: Room 5, Escuela: Room 6**
3. **Dinning Tent:** Breakfast, lunch and dinner will be served here.
4. **Casa Cardiel:** hostel where some participants will be assigned.
6. **Bungalow area:** shared bungalows assigned to participants.
5. **Casa Cambra:** hostel assigned to participants.
7. **Plaza:** Open air square where music performance will take place.
8. **Aula Museo:** Main conference room, posters room and **breakout rooms 1 and 2** respectively.
9. **Biblioteca:** meeting room 7
10. **Recommended path for crossing the road**

General Program

	Sunday 7th May	Monday 8th May	Tuesday, 9th May	
08:00		Breakfast	Breakfast	08:00
08:30				08:30
09:00	Meeting at Zaragoza old town (see map in Practical info)	Keynote talk by Michael Evans Chair: Eugenia de Porras	Breakout groups report	09:00
09:30		Oral session: YSM02		09:30
10:00	Trip Zaragoza-Morillo de Tou	Chair: Sheri Fritz	Chair: Marie-France Loutre	10:00
10:30		Coffee break	Coffee break	10:30
11:00		Oral session YSM01	OS YSM03	11:00
11:30			Chair: Willy Tinner	11:30
12:00			Chair: Katrin Meissner	Oral Session: YSM04 Chair: Michael Evans
12:30	Registration	Oral Session YSM05 Chair: Hubertus Fischer	Oral Session YSM06 Chair: Ilham Bouimetarhan	12:30
13:00	Lunch	Lunch	Lunch	13:00
13:30				13:30
14:00		Poster Session	Workshop 3: Data sharing Chair: Lucien von Guten	14:00
14:30	Welcome by PAGES		Closing: B. Valero-Garcés	14:30
15:00	Marie France Loutre (PAGES) Graciela Gil-Romera (LOC), Rafael Domingo (LOC) and Anchel Belmonte (Sobrarbe GeoPark)	Chair: Rafael Domingo	Bus to Ainsa	15:00
15:30				15:30
16:00	Keynote Talk by Sheri Fritz Chair: Keely Mills	Coffee break	Ainsa visit	16:00
16:30	Coffee break	Workshop 1: Funding Chair: Sheri Fritz		16:30
17:00	Poster Session	Workshop 2: Science Communication Chair: Willy Tinner	Trip Morillo-Zaragoza	17:00
17:30				17:30
18:30	Chair: Rafael Domingo	Breakout groups		18:30
19:00				19:00
19:30	Accommodation			19:30
20:00	Ice-breaker party	Dinner	Welcome reception OSM	20:00
22:00	Night Sky Observation	Live Folk Music Dulzaineros del Bajo Aragón		22:00

Committees

PAGES International Project Office (Bern, Switzerland) (IPO)

Executive Director: Marie-France Loutre

Science Officer and Deputy Executive Director: Lucien von Gunten

Communications and Project Officer: Angela Wade

Information Systems Coordinator: Christian Telepski

Scientific Program Committee (SPC)

- Ilham Bouimetarhan (University of Bremen, Germany)
- Maria Eugenia De Porras (Centro de Estudios Avanzados en Zonas Áridas, Chile)
- Rafael Domingo (University of Zaragoza, Spain)
- Graciela Gil-Romera (University of Aberystwyth, UK and IPE-CSIC, Spain)
- Marie-France Loutre (PAGES IPO, Switzerland)
- Katrin Meissner (University of New South Wales, Australia)
- Keely Mills (British Geological Survey, UK)
- Janet Wilmshurst (Landcare Research, New Zealand)

Local Organizing Committee for YSM (LOC)

- Graciela Gil-Romera (University of Aberystwyth, UK and IPE-CSIC, Spain)
- Rafael Domingo (University of Zaragoza, Spain)
- Penélope González Sampériz (IPE-CSIC, Spain)
- Ana Moreno (IPE-CSIC, Spain)
- Blas Valero Garcés (IPE-CSIC, Spain)

Welcome to the 3rd PAGES Young Scientists Meeting

Welcome to PAGES third Young Scientists Meeting!

PAGES (Past Global Changes) was founded in 1991 as a core project of the now defunct International Geosphere-Biosphere Programme (IGBP). In 2016, PAGES became a Global Research Project of Future Earth, as well as a formal scientific partner of the World Climate Research Programme (WCRP). PAGES facilitates activities that address past changes in the Earth system in a quantitative and process-oriented way, at time scales spanning from the Pliocene to the recent past, to improve predictions of future climate and environment and to inform strategies for sustainability.

PAGES pioneered meetings specifically dedicated to early-career researchers (the Young Scientist Meeting, YSM) and prides itself on providing opportunities for young scientists to become the leading researchers of tomorrow. The first meeting took place in Corvallis (USA) in 2009, and the second meeting in Goa (India) in 2013. Both provided a platform for interdisciplinary scientific exchange and discussion, as well as tips and training from individuals both inside and outside the research community. Participants of both prior meetings have helped with the organization of subsequent YSM meetings, including what we hope you find to be a very exciting program for this third YSM.

The YSM is intended to provide you an opportunity to present your ongoing research, to interact with senior scientists, and to extend your scientific network. Moreover, we would like to give you some time to reflect on what it means to be a scientist in the 21st century, including the emerging skills required for success. We also invite you to discuss your vision of research for the coming decades, including issues of how science is organized, the role of international organizations such as PAGES, the importance of international collaboration, and the most pressing needs in terms of infrastructure. There are also strong expectations from our side. We hope for your involvement, now and long-term, in the scientific community, as well as your engagement in international collaborations, community service, and international associations and unions. Last, but not least, we hope that during these two very intensive days you will establish strong scientific ties with fellow scientists.

We would like to take this opportunity to thank all those who made this event possible - to the organizations which provided financial support, enabling us to assemble such an

inspiring group of early-career researchers; to the Local Organizing Committee for their input and enthusiasm to ensure the meeting is a success; and to the many others who worked hard behind the scenes. Finally, we hope you will also enjoy the wonderful setting of Morillo de Tou.

We wish everyone a productive and inspiring meeting!

Marie-France Loutre, Angela Wade and Lucien von Gunten

PAGES IPO

Sheri Fritz and Willy Tinner

PAGES Co-Chairs

Practical information

Some practical info about *Morillo de Tou*

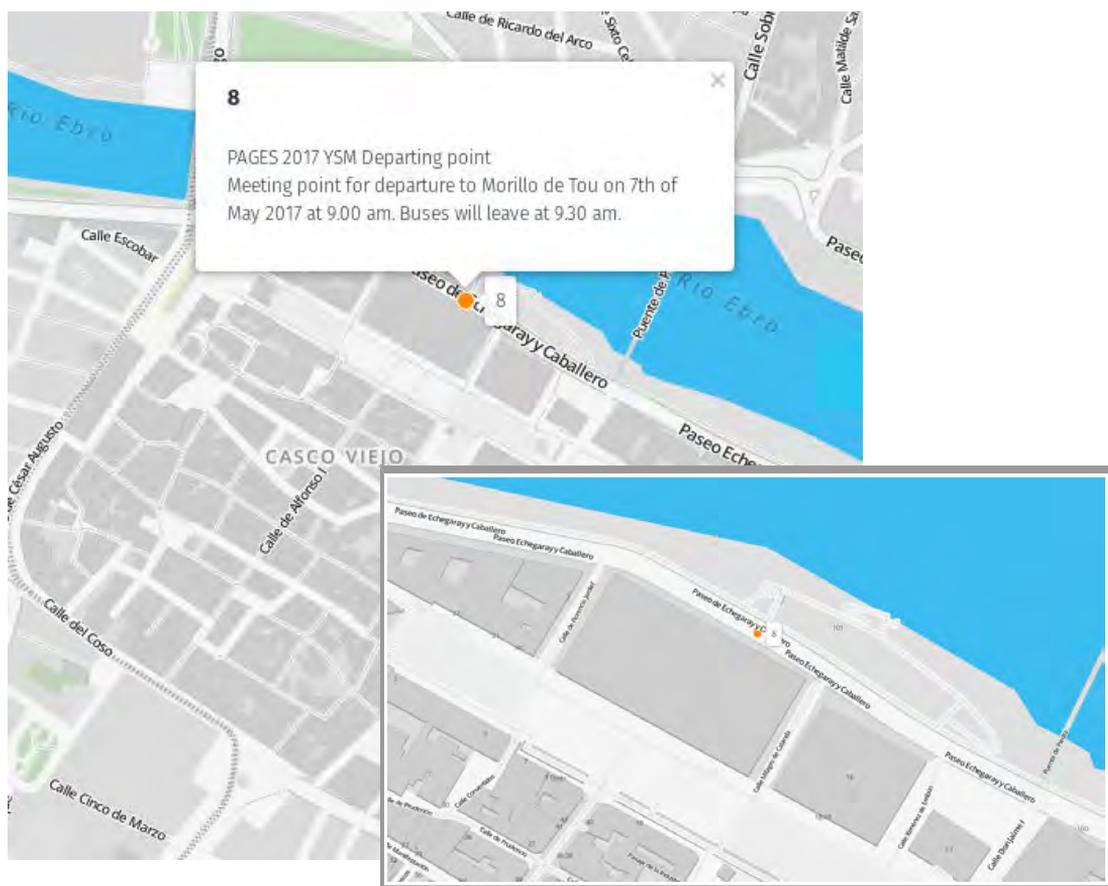
Morillo de Tou, or just Morillo¹, is a restored village that was abandoned during the 1960s due to the expropriation by the government to build the Mediano dam and reservoir. During the 1980s the Trade Union CCOO rebuilt Morillo with the assistance of many union members and supporters that volunteered to bring the village back to life. Thus Morillo is a rebuilt village that is now used as a holiday resort but during the 3rd PAGES YSM the village will be kept exclusively for the YSM attendants. The restored houses are used as hostels or meeting and conference rooms, including a restaurant and some public areas as the main old square.

Arrival in Morillo de Tou on the 7th of May

We will depart from Zaragoza on 7 May at 9:30 am. Buses will leave from behind the "Basilica de El Pilar" in the old town. Address is Paseo Echegaray y Caballero, s/n (see map in page 6). Coordinates are: 41.65°N, 0.88°E. We ask you to be at the meeting point ca. 9:00 am so we can leave promptly. The trip from Zaragoza to Morillo takes 2h30-3h . If you are unable to be on time due to travelling schedules, please contact Graciela Gil-Romera: graciela.gil@ipe.csic.es or Rafael Domingo: rdomingo@unizar.es and they will arrange accordingly.

Upon arrival in Morillo, we will proceed with registration and you will be asked to leave your luggage in a locked room until you can occupy your accommodation. After registration, we will follow with our program – you can see a summary of it in page 2

¹ Short note in Morillo pronunciation: 'll' in Spanish is like English 'y' in you



Physical settings and weather

Morillo de Tou lies in the Cinca river valley, a tributary of the Ebro river, within the Sobrarbe. Morillo, at 780m, is close to the Mediano reservoir surrounded by hilly slopes. Although the altitude is not very high, Morillo presents a temperate mountain climate. During spring, the average day temperature will be mild - varying from 20 to 23°C during the day and ca. 7-9°C at night. **Thus both warm and light clothes might be needed and we remind you to bring sunglasses, sunscreen and a hat.** More info about the geophysical aspects of Morillo can be found [here](#)

Rooms

The rooms designated for YSM participants are distributed amongst different hostels, bungalows and small houses. Rooms will be shared and you will be informed upon arrival

on who will be your room mates. During our stay in Morillo, **there will be no room service but towels are provided by the resort so there is no need to bring your own**. Morillo de Tou is an eco-friendly holiday resort (more info about it will be given at the YSM welcome) so we ask you to save electricity and water whenever possible.

Coffee and lunch breaks

Breakfast, lunch and dinners are served free of charge in the dining tent (see map). All meals are served as a buffet, providing a variety of foods aiming to cover all registered special needs (vegetarian, vegan, red meat, dairy and gluten-free) including alternatives in case of special diet restrictions. Ingredients of all meals will be indicated and **we kindly ask all participants with no particular special needs to respect the meals prepared for those with dietary requirements**. Coffee breaks will be served in the “Aula Museo” entrance hall.

Internet/WiFi connections

Wireless connection is available in all buildings and public areas of Morillo. However, if all attendants try to connect simultaneously, networks will slow down as Morillo is mainly designed as a holiday resort.

Social program

On Sunday 7th, we will observe the night sky, thanks to the **Huesca Astronomical Association**. There will be four telescopes available and volunteers from the association will be on site to explain all relevant celestial bodies. There will be a full moon, so conditions will not be ideal, but we will hopefully enjoy the clear view of the Pyrenean night sky.

On Monday 8th we will have the **live performance of the “[Dulzaineros del Bajo Aragón](#)”** - a traditional folk band that will perform music and traditional dances (encouraging all of us to dance!) after dinner. There will be a bar available during their performance. Drinks must be paid for by participants as they are not included in the regular meals.

On Tuesday 9th, before heading to Zaragoza for the Open Science Meeting (OSM), we will make a **short visit to L'Ainsa, [one of the most beautiful villages of Spain](#)**. We will hear a brief explanation of the most relevant features of this traditional village and its

surroundings.

Schedule and timing

The SPC has prepared a very ambitious but also rich program. We think this is the ideal arena to enhance networking amongst early-career scientists (ECRs) and to connect with research organizations such as PAGES. Thus we ask all participants to stick to the schedule as much as possible so we can accomplish all proposed activities. Arriving on time to all venues and activities guarantees the YSM success.

Emergency contacts

In case of emergency, we provide you with some mobile phone numbers from the LOC. These are personal numbers, so please use them wisely:

Graciela Gil-Romera: +34 600 079 981

Rafael Domingo: +34 661 524 594

María Leunda: +34 666 434 684

Penélope González Sampériz: +34 620 107 499

Sunday 7th of May

- Meeting behind la *Basilica de El Pilar*, Zaragoza Old Town
- 9:00** See map in previous pages, address is *Paseo de Echegaray y Caballero s/n*
coords: 41.65709/-0.87806
- 9:30** Bus leaves to Morillo de Tou
- Arrival in Morillo and registration.
- 12:30** After registration you will be asked to leave your luggage temporarily in a locked room until accommodations can be occupied. Please take all things you may need for making notes, laptops or personal belongings needed along the day.
- Lunch
- 13:00** Meals will be served in the dinning tent (see map in first page) from 13.00 to 14.00. To see more details on special requirements, please do read the practical information at the beginning of this booklet
- Welcome
- 14:30** PAGES-IPO, the LOC and the Scientific Director of the Sobrarbe Geopark will welcome you in Morillo
- Keynote talk: **Sheri Fritz** | Chair: Keelly Mills
- 16:00** The Cenozoic evolution of biotic and geophysical diversity in the tropical Andes and Amazon
- 16:30** Coffee break | Coffee will be served in the Aula Museo entrance hall
- 17:00** Poster session | Chair: Rafael Domingo

Sunday 7th of May - Poster session from 17h to 18h

Poster No	Session code	Session title	Authors	Title
1	YSM01	Climate system dynamics	Schwanck Carlos, F. et al.	Climate and chemistry variability at the Pine Island Glacier ice divide, Antarctica
5	YSM01	Climate system dynamics	Pratte, S. et al.	Late Holocene paleo-records of atmospheric dust deposition in eastern Canada.
9	YSM01	Climate system dynamics	Glueder, A. et al.	Reconstructing relative sea-level in Northern Greenland from marine bivalves
13	YSM01	Climate system dynamics	Talento, S. et al.	Simulated sensitivity of the tropical climate to extratropical thermal forcing
17	YSM01	Climate system dynamics	Pearl, J. et al.	Common Era climate reconstructions from the northeastern United States
21	YSM01	Climate system dynamics	Falster, G. et al.	Coherent millennial-scale hydroclimate variability in southern Australasia during the Last Glacial Period
29	YSM02	Biosphere and ecosystem dynamics	Ashastina, K. et al.	The Batagay mega thaw slump reveals history of inland Beringia
33	YSM02	Biosphere and ecosystem dynamics	Heinecke, L. et al.	Macrophyte (Stuckenia) Analyses and ancient DNA from Lake Sediments - Lake Karakul, Tajikistan
37	YSM03	Human-climate-ecosystem interactions	Alvarez, V. et al.	Late Holocene vegetation dynamics and disturbance regime in north Patagonia
41	YSM03	Human-climate-ecosystem interactions	Dabengwa, A. N. et al.	Local physiognomic responses of local herbaceous biomass to climate and disturbance
45	YSM03	Human-climate-ecosystem interactions	Argiriadis, E. et al.	Late Holocene human-environment interactions in New Zealand: a biomarker approach
49	YSM04	Abrupt changes and threshold responses	Sessford, E. et al.	Water masses and circulation in the Denmark Strait during Dansgaard-Oeschger events
53	YSM05	Modelling	Hughes, R. et al.	Land use in Classical Antiquity: How good are the global datasets? A case study in Roman Switzerland
57	YSM05	Modelling	Jeltsch-Thömmes, A. et al.	Glacial-Interglacial Variations in the Carbon cycle
61	YSM06	New technical and methodological development in past global changes	Döring, M. et al.	Automatization of an inverse surface temperature modelling procedure for Greenland ice cores

Sunday 7th of May - Poster session from 18h to 19h

Poster No	Session code	Session title	Authors	Title
2	YSM01	Climate system dynamics	Menking, J. et al.	Stable Isotopes of Carbon Reveal a Complex Trajectory for CO ₂ Drawdown at Last Glacial Inception
6	YSM01	Climate system dynamics	Beck, J. et al.	Shift in the glacial interglacial methane budget from dual isotope records
10	YSM01	Climate system dynamics	Alexandroff, S. et al.	Reconstructing Holocene hydrographic variability in the Northeast Atlantic using bivalves
14	YSM01	Climate system dynamics	Grothe, P. et al.	Robust evidence for forced changes in ENSO: from the mid-Holocene to the 21st century
18	YSM01	Climate system dynamics	Schneider, T. et al.	High-res. flood history in lake sediments from SW Ecuador of the past two millennia: El Nino or not?
22	YSM01	Climate system dynamics	Bhattacharya, T. et al.	The deglacial dynamics of the North American Monsoon in leaf wax isotopes and model experiments
26	YSM01	Climate system dynamics	Barth, A. et al.	Climate evolution across the Mid-Brunhes Transition
30	YSM02	Biosphere and ecosystem dynamics	Carter, V. et al.	Drivers of vegetation change from the Sumava Region, central Europe in association with the 8.2 ka event
34	YSM03	Human-climate-ecosystem interactions	Chaput, M. et al.	Evaluating global ancient human impacts using archaeological and paleoenvironmental records
38	YSM03	Human-climate-ecosystem interactions	Kay, A. et al.	Mapping livelihoods in West and Central Africa: changes in food-production from 1800 BC to AD 1500
46	YSM03	Human-climate-ecosystem interactions	Fuentealba, M. et al.	Tracking recent watershed changes in Vichuquén Lake (Central Chile) through $\delta^{15}\text{N}$ signatures
42	YSM03	Human-climate-ecosystem interactions	Koch, A. et al.	16th-century America's population demise, land use and carbon cycle changes
50	YSM04	Abrupt changes and threshold responses	De Carvalho Campos, M. et al.	Changes in the western South Atlantic and the adjacent continent during Heinrich Stadials 3 and 2
54	YSM05	Modelling	Gowan, E. et al.	Role of sediments in controlling the dynamics of paleo-ice sheets
62	YSM06	New technical and methodological development in past global changes	Moerman, J. et al.	Triple oxygen isotopes in carbonate sediments: Insights on East African water balance since 500 ka

- 19:00** Accommodation and resting time
Participants will be able to make use of their rooms
- 20:30** Dinner
- 22:00** Night Sky observation
[Astronomical Association of Huesca](#) will provide us with telescopes and volunteers will explain to us various aspects of the visible celestial bodies.

Monday 8th of May

- 8:00** Breakfast
Served in the dinning tent
- 9:00** Keynote talk: **Michael N. Evans** | Chair: M Eugenia de Porras
On the creation and management of a (PAGES) working group
- 9:30** Oral session YSM 02 Biosphere and ecosystem dynamics and YSM05
Modelling | Chair: Sheri Fritz.

Session code	Session title	Time	Authors	Title
YSM05	Modelling	9:30	Eggleston, S. et al.	Disequilibrium DIC: Carbon storage and the effects of ocean circulation and the soft tissue pump
YSM02	Biosphere and ecosystem dynamics	9:45	Plumpton, H. et al.	Impact of mid-Holocene drought upon Bolivian seasonally-dry tropical forests
YSM02	Biosphere and ecosystem dynamics	10:00	Braun, K. et al.	The Relationship between Extratropical Plant Diversity and Pleistocene Climate Stability
YSM02	Biosphere and ecosystem dynamics	10:15	Benito, X. et al.	Diatom biogeography in tropical South America: importance of climatic and spatial factors

- 10:30** Coffee break
Coffee will be served in the Aula Museo hall
- 11:00** Oral session YSM 01 Climate systems | Chair: Katrin Meissner

Monday 8th of May

Session code	Session title	Time	Authors	Title
YSM01	Climate system dynamics	11:00	Chalk, T et al.	Causes of ice-age intensification across the Mid-Pleistocene Transition
YSM01	Climate system dynamics	11:15	Baggenstos, D et al.	Mean ocean temperature evolution in the past 40,000 years from ice core noble gas thermometry
YSM01	Climate system dynamics	11:30	Jensen, M. F. et al.	Sea-surface temperatures during Dansgaard-Oeschger events 5-8, a model-data integration study
YSM01	Climate system dynamics	11:45	Chawchai, S. et al.	Instant responses of Indian Ocean monsoon to high-latitude northern Atlantic during the last 16 ka.
YSM01	Climate system dynamics	12:00	Cisneros Bermejo, M. et al.	2k climate variability: the central western Mediterranean from speleothems and marine sediments
YSM01	Climate system dynamics	12:15	Picas, J. et al.	Linking explosive 19th century volcanoes with wild storms over southernmost Africa: a case of cause

12:30 Oral session YSM 05 Modelling | Chair: Hubertus Fischer

Session code	Session title	Time	Authors	Title
YSM05	Modelling	12:30	Zoura, D. et al.	Influence of CO ₂ , the Antarctic Ice Sheet and Asian Topography on the Asian Monsoon and Regional Moisture Availability
YSM05	Modelling	12:45	Tabor, C. et al.	The Large Scale Responses of Water Isotopes to Changes in Earth's Orbit

13:00 Lunch

Lunches will be served in the dining tent (see map in first page) from 13.00 to 14.00. To see more details on special requirements, please do read the practical information at the beginning of this booklet.

14:00 Poster session | Chair: Rafael Domingo

Monday 8th of May - Poster session from 14h to 15h

Poster No	Session code	Session title	Authors	Title
3	YSM01	Climate system dynamics	Edwards, J. et al.	The inter-polar methane difference from the WAIS Divide and GISP2 ice-cores during Heinrich Stadials
7	YSM01	Climate system dynamics	Blaser, P. et al.	The evolution of deep water circulation in the subpolar North Atlantic during the last glacial termination
11	YSM01	Climate system dynamics	Grimmer, F. et al.	Early Pliocene vegetation and hydrology changes in western Ecuador
15	YSM01	Climate system dynamics	Freund, M. et al.	ENSO flavours- Spatial dynamics of ENSO during the pre- industrial period
19	YSM01	Climate system dynamics	Frugone Alvarez, M. et al.	Differential response of Holocene climate variability observed from lake records along an elevational gradient in the intermediate latitudes of the Southern Hemisphere
23	YSM01	Climate system dynamics	Ait Brahim, Y. et al.	Speleothem $\delta^{18}O$ record of multidecadal Atlantic oscillations during the last millennium in Morocco
27	YSM01	Climate system dynamics	Lee, J. et al.	Long-term variation of clay mineral compositions in the Andaman Backarc Basin since the late Miocene
31	YSM02	Biosphere and ecosystem dynamics	Patil, S. et al.	Biogeographic distribution of extant Coccolithophores in the Indian Sector of the Southern Ocean
35	YSM03	Human-climate-ecosystem interactions	Hapsari, K. et al.	Human disturbance and resilience of a tropical peatland in Sumatra, Indonesia
39	YSM03	Human-climate-ecosystem interactions	Callegaro, A. et al.	Fire and vegetation changes during Holocene recorded in Tibetan lacustrine sediments
43	YSM03	Human-climate-ecosystem interactions	Primmer, N. et al.	Tropical climate dynamics through the Holocene using varve analysis from Yaal Chac, Mexico
47	YSM03	Human-climate-ecosystem interactions	A S Pillai, A. et al.	Late Holocene vegetation responses to climatic and disturbance drivers in Western Indian grasslands
51	YSM04	Abrupt changes and threshold responses	Ceperley, E. et al.	A Late Pleistocene Meltwater Routing Record from the Gulf of Mexico
55	YSM05	Modelling	Keisling, B. et al.	Reconstructing Greenland Ice Sheet Dynamics During the Last Deglaciation
59	YSM06	New technical and methodological development in past global changes	Muthreich, F. et al.	New techniques in palynology: Using FTIR and pollen morphology to classify Eucalyptus Pollen'
63	YSM06	New technical and methodological development in past global changes	Leland, C. et al.	Strip-bark morphology and radial growth trends: Considerations for dendroclimatic reconstructions

Monday 8th of May -Poster session from 15h to 16h

Poster No	Session code	Session title	Authors	Title
4	YSM01	Climate system dynamics	Dalton, A. S. et al.	Age and inferred paleoclimate from Pleistocene-aged deposits in the Hudson Bay Lowlands, Canada
8	YSM01	Climate system dynamics	Barnett, R. et al.	Reconstructing regional sea-level changes in eastern Canada using salt-marsh testate amoebae
12	YSM01	Climate system dynamics	Higley, M. et al.	Medieval Aridity in the Central Tropical Pacific
16	YSM01	Climate system dynamics	Dassié, E. et al	Spatio-temporal variability of the SPCZ fresh pool eastern front from coral-derived SSS data
20	YSM01	Climate system dynamics	Masi, A. et al.	Palynology discovers the plants response to climate changes during the last interglacial at Lake Ohrid (FYROM/Albania)
24	YSM01	Climate system dynamics	Zhang, Y. et al.	Discriminating the impacts of Heinrich and Dansgaard-Oeschger stadials over tropical South America
28	YSM01	Climate system dynamics	Coats, S. et al.	Characterizing spatial and temporal scales of drought in the CESM and paleoclimate reconstructions
32	YSM02	Biosphere and ecosystem dynamics	Schafstall, N. et al.	Linking fossil bark beetles to disturbance history of the Šumava national park, Czech Republic
36	YSM03	Human-climate-ecosystem interactions	Kuosmanen, N. et al.	Drivers of regional and local boreal forest dynamics during the Holocene in northern Europe
40	YSM03	Human-climate-ecosystem interactions	Pandey, S. et al.	Holocene evolution of mangrove vegetation, palaeoclimate and sea level changes at the Chilka Lagoon,
44	YSM03	Human-climate-ecosystem interactions	Trapote, M C et al.	Climatic & anthropogenic drivers of past ecological dynamics in lake Montcortes (Iberian Peninsula)
48	YSM03	Human-climate-ecosystem interactions	Velázquez, N. J. et al.	Pollen sources in studies of camelid coprolites from Patagonia (Argentina)
52	YSM04	Abrupt changes and threshold responses	Florescu, G. et al.	Holocene rapid climate changes reflected in NE and CE European charcoal records
56	YSM05	Modelling	Holloway, M. et al.	Antarctic Last Interglacial Isotope Peak in Response to Sea Ice Retreat not Ice Sheet Collapse
60	YSM06	New technical and methodological development in past global changes	Nolan, C. et al.	Using co-located lake and bog paleohydrologic records to improve proxy climate interpretations

Monday 8th of May

- 16:00** Coffee break
Coffee will be served in the Aula Museo hall
- 16:30** Workshop 1: Money makes your world go round - Opportunity and Challenges | Chair: Sheri Fritz
Hubertus Fischer (University of Bern, Switzerland): *How to write a successful scientific proposal?*
Jonas Bunikis (European Research Council Executive Agency): *ERC funding: are you ready(ing)?*
Pilar Calatayud (Director of the European Projects Office, University of Zaragoza): *How to apply for European Fundings ?*
- 17:00** Workshop 2: How to communicate science? | Chair: Willy Tinner
Alicia Newton (Nature Geoscience, UK)
Liz Kalaugher (Editor of Environmental Research Web) *Media: furthering the reach of your science. What makes a news story and how to get the word out about your findings?*
Angela Wade (communication officer at PAGES)
- 17:30** Breakout groups
(More info is available in the documentation folder)
Participants will move to one of the 7 discussion rooms.
Discussion groups will be made based on 7 topics:
1. Continuation of the workshop discussion: scientific communication, communication with the media, develop better strategies to communicate paleoscience to a non-academic audience (communication).
 2. Continuation of the workshop discussion: funding research (funding).
 3. Advocate for the relevance and importance of paleo-research to a funding agency or a policy maker (relevance of paleo-research).
 4. The international scientific organizations and their link (PAGES, EGU, ICSU, ...); Is it important to set up a PAGES Early Career Researcher group? (international scientific organizations)
 5. Is there a life for a scientists outside professorship ? (e.g. scientific funding agency, consultancy, insurance, software management) (NO professorship).
 6. What should the research questions and priorities in paleoscience be for the next 10 years? (Priorities)
 7. Develop better strategies to highlight paleo-research as a useful tool to

solve or to help how to solve present-day problems of socio-economic importance (Paleo-research AND).

Participants have already been assigned to two different discussion groups and questions to produce some debate have already been distributed. A facilitator will moderate discussion and each group must identify a rapporteur to produce a collaborative report the next day.

20:00 Dinner

22:00 Alive music and dancing performance: [Dulzaineros del Bajo Aragón](#)
Plaza de Morillo de Tou (or Dinning tent if weather conditions are not favourable)

Tuesday 9th of May

- 8:00** Breakfast
Served in the dinning tent.
We kindly ask you to leave rooms empty and to leave ready all luggage for departure in the afternoon in a locked room in Casa Forestal.
- 9:00** Breakout groups report | Chair: Marie-France Loutre
Each rapporteur will share the main conclusions of the assigned discussion topic and there will be an open time for discussion
- 10:30** Coffee break
Coffee will be served in the Aula Museo hall
- 11:00** Oral session YSM 03 Human-Climate-Ecosystem interactions
Chair: Willy Tinner

Session code	Session title	Time	Authors	Title
YSM03	Human-Climate-Ecosystem interactions	11:00	Feng, R. et al.	Contributions to Pliocene Arctic warmth from a clean atmosphere and enhanced forest fire emissions
YSM03	Human-Climate-Ecosystem interactions	11:15	Maezumi, S. et al.	Distinguishing Amazonian Climate versus Human Driven Fire Regimes Since the Last Glacial Period
YSM03	Human-Climate-Ecosystem interactions	11:30	Razanatsoa, E. et al.	Relative impact of climate change and human activities on the ecosystems in southwest Madagascar
YSM03	Human-Climate-Ecosystem interactions	11:45	Stockhecke, M. F. et al.	Late Pliocene East African climate variability reconstructed from the Baringo Basin (Kenya) HSPDP drilling project

- 12:00** Oral session YSM 04 Abrupt changes and threshold responses |
Chair: Mike N. Evans

Session code	Session title	Time	Authors	Title
YSM04	Abrupt changes and threshold responses	12:00	Reilly, B. et al.	Holocene Activity of the Petermann Glacial System
YSM04	Abrupt changes and threshold responses	12:15	Zhang, K. et al.	Abrupt ecological transition in China's aquatic systems during the last two centuries

Tuesday 9th of May

12:30 Oral session YSM 06 New technical and methodological development in past global changes | Chair: Ilham Bouimetarhan

Session code	Session title	Time	Authors	Title
YSM06	New technical and methodological development in past global changes	12:30	Dearing Crampton Flood, E. et al.	A terrestrial Pliocene-Pleistocene temperature record from North-Western Europe
YSM06	New technical and methodological development in past global changes	12:45	Chevalier, M. et al.	A novel framework to optimise palaeoclimatic information derived from fossil pollen data

13:00 Lunch

Lunches will be served in the dining tent (see map in first page) from 13.00 to 14.00. To see more details on special requirements, please do read the practical information at the beginning of this booklet.

14:00 Workshop 3: How to share scientific data | Chair: Lucien von Guten
Darrell Kaufman (Arizona University, USA); *Data Stewardship Integrative Activity and how it works in practice.*
Alicia Newton (Nature Geoscience, UK); *Policy regarding data availability.*
Jonas Bunikis (European Research Council Executive Agency); *The position of the European Research Council on data policy.*

14:30 Closing 3rd PAGES YSM in Morillo de Tou: Blas Valero-Garcés

15:00 Bus to L' Ainsa

15:30 Bus departs to L'Ainsa

L'Ainsa village is just 5 minutes away from Morillo by car. We will have a quick tour around the village with some explanations from Anchel Belmonte (Scientific director of the Sobrarbe Geopark)

17:00 Trip from Morillo de Tou to Zaragoza

19:30 Arrival in the Welcome Open Science Meeting Reception Auditorio de Zaragoza – PAGES OSM Main conference venue

19:30 Arrival in the Welcome Open Science Meeting Reception Auditorio de Zaragoza – PAGES OSM Main conference venue

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