



ECE 11

Lyon, France



THIRD CIRCULAR

11th European Conference on Echinoderms (ECE11)

October 16–20, 2023

Lyon, France



After previous successful editions in Brussels (Belgium, 1979 and 1989), Lecce (Italy, 1991), London (UK, 1995), Milano (Italy, 1998), Banyuls (France, 2001), Göttingen (Germany, 2010), Portsmouth (UK, 2014), Sopot (Poland, 2016) and Moscow (Russia, 2019), we are very pleased to invite you to the 11th European Conference on Echinoderms (ECE11), which will be held in Lyon (France) next autumn.

This meeting will be the first 'in person' echinoderm meeting after an almost four-year hiatus due to the covid pandemic, and we look forward to seeing you all again!

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Thomas Saucède (Dijon)

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Didier Néraudeau (Rennes, France)

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Mike Reich (Braunschweig, Germany)

Farid Saleh (Lausanne, Switzerland)

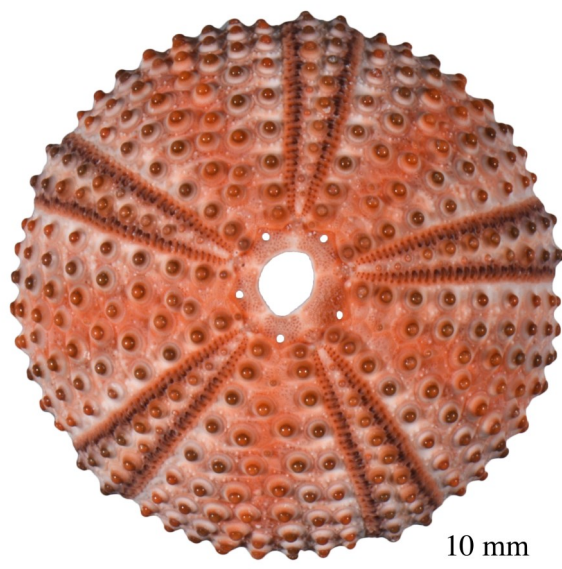
Sabine Stöhr (Stockholm, Sweden)

Jeffrey Thompson (Southampton, UK)

Ben Thuy (Luxemburg, Luxembourg)

Loïc Villier (Paris, France)

Samuel Zamora (Zaragoza, Spain)



CONFERENCE SCHEDULE

	Monday 16 Oct.	Tuesday 17 Oct.	Thursday 19 Oct.	Friday 20 Oct.
08h00-08h15		R. Mooi (S4)		
08h15-08h30				
08h30-08h45			Applied Biomedicine & Biomimetics (S7)	M. Nonclercq & C. Dupichaud (S11)
08h45-09h00	welcome address			
09h00-09h15				
09h15-09h30	P. Oliveri (S1)	Palaeontology I (S4)		Collections (S11)
09h30-09h45				
09h45-10h00			coffee break	coffee break
10h00-10h15	coffee break			
10h15-10h30		coffee break		
10h30-10h45				Post-Metamorphosis Development (S12)
10h45-11h00				
11h00-11h15	Embryonic & Larval Development (S1)	Ecophysiology, Ecotoxicology & Effects of Global Change Stressors (S5)	Systematics II (S8)	
11h15-11h30				Ecology, Functional Ecology & Morphology II (S13)
11h30-11h45				
11h45-12h00				
12h00-12h15				
12h15-12h30				
12h30-12h45	lunch & Poster Session 1		lunch & Poster Session 2	lunch & Poster Session 2
12h45-13h00		lunch & Poster Session 1		
13h00-13h15				
13h15-13h30				
13h30-13h45	J. Croce (S1)			
13h45-14h00		P. Dubois (S5)	T. O'Hara (S9)	J. Nebelsick (S14)
14h00-14h15				
14h15-14h30				
14h30-14h45	Bioluminescence & Photoreception (S2)	Ecophysiology, Ecotoxicology & Effects of Global Change Stressors (S5)	Biogeography (S9)	
14h45-15h00				Palaeontology II (S14)
15h00-15h15				
15h15-15h30				
15h30-15h45	coffee break		coffee break	
15h45-16h00				
16h00-16h15		coffee break		
16h15-16h30				coffee break
16h30-16h45				
16h45-17h00	Systematics I (S3)	Ecology, Functional Ecology & Morphology I (S6)	Revision of the <i>Treatise on Invertebrate Paleontology</i> (S10)	General Session (S15)
17h00-17h15				
17h15-17h30				closing ceremony
17h30-17h45				
17h45-18h00		EMBRC		
EVENING	ICE BREAKER	PUBLIC CONFERENCE	GALA DINNER	

Session 1

08:00 Registration desk open

09:00 Opening Ceremony

Session 1: Embryonic & Larval Development
chairs: Hugh Carter & Jenifer Croce

09:30 **P. Oliveri (keynote)**
title not communicated yet

10:15 Coffee break

10:45 **G. Eviatar**, L. Roth & O. Bronstein
Temporal effects on sperm motility and fertilization success across three echinoid species

11:00 **A. Rufino-Navarro**, T.J. Carrier & J.C. Hernández
The developmental stages of the sea urchin *Arbacia lixula* associated with photosymbionts that influence host survival

11:15 **P. Cormier**, F. Pontheaux, S. Boulben, H. Chassé, A. Boutet, F. Roch & J. Morales
Identification of neo-translated mRNAs regulating cleavage dynamics in early sea urchin embryos

11:30 **L. Piovani**, E. Parey, S. Mercurio, M. Sugni & F. Marlétaz
Genomic and single cell insights into the metamorphosis of the crinoid *A. mediterranea*

11:45 **B. Delorme**, N. Cuny, G. Lhomond, G. Malandain, T.A. Basith, G. Salbreux, J. Croce & M. Rauzi
Mechanisms and mechanics of tubulogenesis in the embryo of *Paracentrotus lividus*

12:00 Lunch and **Poster Session 1**

13:30 G. Lhomond, M. Schubert & **J. Croce (keynote)**
The canonical Wnt/ β -catenin signaling pathway and the control of sea urchin embryonic development

Session 2

Session 2: Bioluminescence & Photoreception
chairs: Constance Coubris & Jérôme Mallefet

14:15 **C. Coubris**, S. Dupont & J. Mallefet
Ontogenic apparition of luminous capabilities in the brittle star *Amphiura filiformis*

14:30 **J. Mallefet**, P. Martinez-Soares, M. Eléaume, T. O'Hara & L. Duchatelet
Amazing Bioluminescence of Crinoidea from Depths

14:45 **W.S. Bayaert**, L. Duchatelet, C. Coubris, P. Flammang, J. Mallefet & J. Delroisse
Deep dive into the multi-level control of bioluminescence in the brittle star *Amphiura filiformis*

15:00 **Y. Nonclercq**, P. Flammang, I. Eeckhaut & J. Delroisse
Study of sea cucumber photoreception

15:15 **J. Delroisse**, W. Bayaert, J. Rousseaux, M. Majerova, E. Lau, J. Ullrich-Lüter, K. Buckley, O. Ortega-Martinez, P. Oliveri, F. Marletaz, P. Martinez, E. Parey, T. Oakley, M. Marek, J. Mallefet & P. Flammang
Keep your eyes on the stars... and their genes! News insights into the bioluminescence of the brittle star *Amphiura filiformis*

15:30 Coffee break

Session 3: Systematics I
chairs: Camille Moreau & Ruiyan Zhang

16:00	R. Zhang & C. Wang Systematics of deep-sea starfish order Brisingida (Echinodermata: Asteroidea), with revised classification and remarks on character evolution
16:15	X. Xie Integrative taxonomy of the order Euryalida (Echinodermata, Ophiuroidea) from the West Pacific
16:30	P. Martinez-Soares , M. Roux, M. Eléaume & N. Améziane Atelecrinidae: using molecular data and X-ray tomography to look into the latest hypotheses
16:45	A. Eichsteller , T. O'Hara, M. Christodoulou & P. Martinez Arbizu Ophiuroid phylogenomic: deep-sea species enrich the tree of life
17:00	H.A. Lessios & L. Geyer Evolution of sperm and egg proteins in the sea urchin <i>Diadema</i>
17:15	E. Courville , N. Mongiardino Koch, H. Lessios, A. Díaz, T. Saucède & E. Poulin New molecular phylogeny sheds new light on the evolutionary history of the genus <i>Arbacia</i> Gray, 1835 (Arbacioida, Echinoidea)
17:30	A. Kroh & M. Kapun A novel UCE probe set for phylogenomics of echinoids
17:45	M. Christodoulou , T. O'Hara, C. Mah, A. Gebruk, R. Mooi, M.P. Eléaume & P. Martinez Arbizu The echinoderm abyssal biodiversity of the Clarion Clipperton Zone
18:00	Icebreaker Reception
21:00	

TUESDAY, OCTOBER 17, 2023

08:00 Registration desk open

Session 4: Palaeontology I
chairs: Pauline Guenser & Samuel Zamora

08:00	R. Mooi (keynote) You can't get a head: Supporting a view in which the first echinoderms were pentaradial
08:45	F. Saleh , B. Lefebvre, C. Dupichaud, E. Martin, M. Nohejlová & L. Spaccesi Skeletal elements controlled soft-tissue preservation in echinoderms from the Early Ordovician Fezouata Biota
09:00	C. Dupichaud , B. Lefebvre, M. Nohejlová & S. Zamora The oldest African echinoderms (Morocco): Morphology and implications for the diversification of blastozoans in the early Cambrian
09:15	S. Zamora The oldest record of stylophorans
09:30	X. Zhuang , T.A.M. Ewin, I.A. Rahman, B. Clark, J.R. Thompson & M. Reich Virtual reconstruction and analysis of a new, exceptionally preserved Silurian cyclocystoid provides insights into soft tissue structures and the mode of life of an enigmatic extinct class

09:45	E. Decaux , B. Lefebvre, N. Rivière, D. Lopez & S. Puijalon Scouring around a fossil organism (Cincta, Echinodermata): Physical modelling and morpho-functional analysis
10:00	J. El Kabouri , E. Errami, B. Becker-Kerber, N. Ennih, U. Linnemann, C. Fellah, A. Triantafyllou & B. Lefebvre <i>Arkarua</i> -like fossils from the Anti-Atlas region (Morocco): A new opportunity to test the Ediacaran-Cambrian radiation
10:15	Coffee break
Session 5:	Ecophysiology, Ecotoxicology & Effects of Global Change Stressors chairs: Guillaume Caulier & Lachan Roth
10:45	L. Roth , G. Eviatar, L.M. Schmidt & O. Bronstein Red Alert: Regional scale mass mortality of diadematoids in the Northern Red Sea
11:00	E. Bossiroy , N. Wambreuse, F. David, C. Vanwinge, J. Delroisse, I. Eeckhaut & G. Caulier An innovative strategy for the isolation of circulating pigmented cells: The case of sea cucumber coelomocytes
11:15	P. Gorzelak , D. Kołbuk, J. Stolarski & P. Dubois Effect of shifts in the Mg^{2+}/Ca^{2+} ratio of seawater on mechanical properties of the echinoderm skeleton
11:30	R. Pérez-Portela , M. Peralta, S. González-Delgado & J.C. Hernández Local adaptation to temperature under high levels of gene flow in <i>Diadema africanum</i> , a key herbivore in the Canary Islands
11:45	M. Pyl , H. Gharbia, K. Sdiri, F. Oberhänsli, J. Friedrich, B. Danis & M. Metian Comparative role of biofilm-covered microplastic and sediment particles as vectors of ^{14}C -PCB-153 to <i>Paracentrotus lividus</i>
12:00	M. Aliende-Hernandez , S. González-Delgado, R. Perez-Portela & J.C. Hernández Effect of ocean warming on clonal and sexual population of the starfish <i>Coscinasterias tenuispina</i> (Lamarck, 1816)
12:15	Lunch and Poster Session 1
13:45	P. Dubois (keynote) Are macroalgal beds possible refuges for echinoderms facing ocean acidification?
14:30	L.M. Schmidt , G.A. Benaim, A. Kroh & O. Bronstein Global trends of echinoid mass mortalities – insights from <i>Echinocardium</i> from the Eastern Mediterranean Sea
14:45	M. Byrne , D.J. Deaker, P. Selvakumaraswamy & M. Clements Juvenile waiting stage crown-of-thorns sea stars are resilient in heatwave conditions that bleach and kill corals
15:00	M. Martín-Huete , M. Peralta-Serrano, R. Fernándezvilert & R. Pérez-Portela Metabolic plasticity of sea urchins to face ocean warming
15:15	N. Wambreuse , E. Bossiroy, J. Delroisse, C. Vanwinge, I. Eeckhaut & G. Caulier Divergent function between perivisceral fluid and hydrovascular fluid under immunological stress in sea cucumbers (<i>Holothuria forskali</i>)
15:30	G. Caulier , A. Lourtie, P. Gerbaux, E. Claereboudt, P. Flammang & I. Eeckhaut Saponins: Multitasking chemical signatures in asteroids and holothuroids
15:45	M. Lamare , M. Byrne, B. Danis, D. Deaker, S. Dupont, S. Foo, T. Jowett, S. Karelitz, M.A. Sewell, L. Thomas & A. Aguera Antarctic sea star <i>Odontaster validus</i> larval performance is negatively impacted by long-term parental acclimation to warming

16:00	Coffee break
Session 6:	Ecology, Functional Ecology & Morphology I chairs: Maria Eugenia Majón-Cabeza & Loïc Michel
16:30	M. Delleuze , G. Schwob, J. Orlando, B. Danis, E. Poulin & L. Cabrol Could two burrowing echinoid species coexist thanks to ecological niche differentiation driven by their gut microbiome?
16:45	S. Gonzalez-Delgado , O.S. Wangensteen, B. Alfonso & J.C. Hernández Echinoderms associated with different subtropical macroalgal communities revealed by metabarcoding
17:00	L.F. Indriana , A. Kunzmann & M.J. Slater Dietary effect of fermented feed sources on growth performance of juveniles sea cucumber <i>Holothuria scabra</i>
17:15	J. Pierrat , L. Urbistondoy, A. Modi, B. Viramoutou & P. Frouin What drives the patchy distribution of tropical sea cucumbers? A multispecific monitoring study
17:30	M. Webb , M. Clements, P. Selvakumaraswamy, E. McLaren & M. Byrne Behavioural responses of juvenile Crown of Thorns Starfish (<i>Acanthaster</i> sp.) to flow and chemosensory cues from coralline algae, coral, and adult conspecifics
17:45	European Marine Biological Resource Centre (EMBRC)
19:00	Open Public Conference by Thomas Saucède [in French]
20:00	La biodiversité marine des Terres australes françaises face aux changements climatiques

WEDNESDAY, OCTOBER 18, 2023

- Activity 1 Zoological Collections (Lyon 1 University)
- Activity 2 Palaeontological Collections (Lyon 1 University)
- Activity 3 Guided tour, Lyon Aquarium
- Activity 4 Field excursion to Ardèche (La Voulte Lagerstätte, Musée de l'Ardèche, ...)

THURSDAY, OCTOBER 19, 2023

Session 7:	Applied Biomedicine & Biomimetics chairs: Patrick Flammang & Michela Sugni
08:00	V. Sardhalia & M. Albéric Bio-sourced hybrid pigments inspired by colored sea urchin spines
08:30	R. Santos Screening for sea urchin adhesive proteins to develop new biomimetic adhesives for biotechnological and biomedical applications
08:45	P. Flammang , N. Lemaire, N. Singh, A. Lin, J. Delroisse, C. Moraes & M.J. Harrington Mechanically tunable collagen scaffolds for tissue engineering applications inspired by sea cucumbers
09:00	A. Whaite , B. Herlemont, J. Delroisse & P. Flammang Bonding with sea cucumbers: Identification of tube foot adhesive proteins from transcriptomic data

- 09:15 **S.E. Coppard**, J. Macrandier & A. Ziegler
Sea urchin venomomics: venom composition in relation to habitat and predation pressure
- 09:30 **G. Martinelli**, M. Roncoroni, A. Massironi, F. Bonasoro, S. Marzorati & M. Sugni
Sea urchin wastes valorization: Production of innovative composite biomaterials for tissue regeneration

09:45 Coffee break

Session 8

Session 8: Systematics II
chairs: Magdalini Christodoulou & Jeffrey Thompson

- 10:15 **S. Stöhr**
Genital plates and associated structures in Ophiuroidea – morphology and phylogenetic implications
- 10:30 **J.R. Thompson**, I.A. Rahman, M. Reich, T.A.M. Ewin, N. Mongiardino Koch & S. Zamora
Origin and evolution of echinozoan body plans
- 10:45 **E. McLaren**, O. Bronstein, A. Kroh & M. Byrne
Tripneustes australiae, the senior synonym of *T. kermadecensis*: Taxonomy and museum distribution records of sea urchins in the genus *Tripneustes* in eastern Australia
- 11:00 **L. Vantomme**, K. Gérard, Q. Jossart, B. Danis & C. Moreau
Sea star (Asteroidea) diversity in the Magellanic region (south-Chile) and their affinities within the Southern Ocean
- 11:15 **T. Saucède**, Q. Jossart, J. Vandermeeren, M. Delleuze, B. Danis & C. Moreau
The taxonomic status of *Aporocidaris incerta* (Koehler, 1902): Such a long enigma for a common species
- 11:30 **D. Janies**, Y. Quetzalli Hernandez-Días, F. Solis-Marin, K. Lopez, J. Fletcher & I. Bosch
Many cloning larvae and related juveniles are Oreasteridae
- 11:45 **K. Mezali**
The sea cucumber of the Algerian coastal waters: Taxonomy, ecology and their nascent fisheries and illegal trade
- 12:00 **D.L. Soualili**, A. Benarous & K. Mezali
First record of the echinid *Echinus melo* Lamarck, 1816 on the west coast of Algeria (Sidi-Madjdoub, Mostaganem)

12:00 Lunch and **Poster Session 2**

Session 9

Session 9: Biogeography: Past, Present and Future in a Changing World
chairs: Angelina Eichsteller & Tim O'Hara

- 13:45 **T. O'Hara (keynote)**
Biogeography and evolution of ophiuroids
- 14:30 **F. Ducarme**
Keeping up reliable biogeographic information in a changing taxonomy : Three asteroid tales
- 14:45 **K.C.K. Ma**, R. Trenholm, J.F. Hamel & A. Mercier
Longitudinal gradient in the population size structure of the sea cucumber *Cucumaria frondosa* in the Northwest Atlantic
- 15:00 **H. Carter**, S. Williams & P. Oliveri
To brood or not to brood: Predicting larval strategies in the Asteroidea
- 15:15 **O. Bronstein**, R. Zirler, L.A. Leck, T. Feldstein Farkash, M. Holzknecht, A. Kroh, V. Gerovasileiou, M.F. Huseyinoglu, C. Jimenez, V. Resaikos & M.B. Yokes
From invasion to mass mortality- the ongoing saga of *Diadema setosum* in the Mediterranean Sea

15:30	Coffee break
Session 10:	Revision of the <i>Treatise on Invertebrate Paleontology</i> (S, T & U) chairs: Martina Nohejlová & Loïc Villier
16:00	T. Saucède , A. Kroh, C. Mah, T. O'Hara, G. Paulay, M. Reich, S. Stöhr & B. Thuy Treatise on Invertebrate Paleontology, Part U, Echinodermata 3, Asterozoa - Echinozoa: Last updates and perspectives for the future
16:30	B. Lefebvre Class Stylophora: What's new since the last IEC (Nagoya, 2018)?
16:45	S. Zamora An overview of cinctans and ctenocystoids (stem-echinoderms)
17:00	C.D. Sumrall A revised classification for Edrioasteroidea
17:15	A. Kroh & M. Reich Holothuroid phylogeny inferred from mitogenome data
17:30	Y. Makhlof , B. Lefebvre, E. Nardin & C.R.C. Paul Aristocystitidae (Echinodermata, Blastozoa): Systematic and taxonomic review
17:45	M. Nohejlová , C. Dupichaud & B. Lefebvre <i>Quid novi Soluta?</i>
19:30	Gala Dinner
23:00	

FRIDAY, OCTOBER 120, 2023

08:00	Registration desk open
Session 11:	Collections & History of Echinoderm Research chairs: Marie Nonclercq & Mike Reich
08:30	M. Nonclercq, C. Dupichaud , B. Bärtschi & B. Kaufmann (keynote) The Caudan Expedition: History and legacy of the echinoderms collections of the Université de Lyon
09:15	C. Conand , S. Purcell, J.F. Hamel, A. Mercier, M. Di Simone, A. Horellou, K. Friedman & A. Lovatelli Conservation of commercially exploited sea cucumbers (Holothuroidea): Recent advances and knowledge gaps
09:30	P. Guenser & B. Lefebvre Historical, sampling and gender bias in palaeontological collections: Stylophora (Echinodermata) as a case study

09:45	Coffee break
Session 12:	Post-Metamorphosis Development chairs: Philippe Dubois & Dorota Kolbuk
10:15	J. Walker , I. Rahman, D. Doran & J. Thompson Chemical composition and distribution in sea urchin teeth using synchrotron X-ray fluorescence
10:30	S.R. Stock , P.D. Shevchenko & A. Ziegler Novel 3D quantification of plate and needle/prism dimensions in teeth of the Odontophora (Echinoidea: Camarodonta)

- 10:45 **G. Pria**, A. Barbaglio, L. Piovani, F. Marletaz, F. Bonasoro, P. Martinez, M.D. Candia Carnevali & M. Sugni
Cell commitment prevents larval regeneration in the crinoid *Antedon mediterranea*
- 11:00 **M. Albéric**, C. Dos Reis Ferreira, O. Spaeker, L. Bertinetti & Y. Politi
The importance of red-spherule cells in the pigmented biomineralization processes of sea urchin spines

Session 13: Ecology, Functional Ecology & Morphology II
chairs: Maria Byrne & Frédéric Ducarme

- 11:15 **G. Corbisier**, G. Caulier, J.F. Hamel & A. Mercier
Comparative and morpho-functional investigation of the stone canal in Holothuroidea
- 11:30 **A. Deridoux**, P. Flammang & S. Gabriele
Tube feet dynamics control sea star locomotion
- 11:45 **A. Lourtie**, G. Caulier, L. Mussoi, M. Isorez, I. Eeckhaut & J. Mallefet
Impact of host separation on the echinoderms obligate symbionts
- 12:00 **L. Mussoi**, A. Lourtie, G. Lepoint, F. David & G. Caulier
Chromatic harmony in symbiosis: Acquisition and characterization of pigments in *Zenopontonia soror*, associated with *Culcita novaeguineae*

12:15 Lunch and **Poster Session 2**

Session 14: Palaeontology II
chairs: Tim Ewin & Elise Nardin

- 13:45 **J. Nebelsick (keynote)**
Taphonomy and paleoecology of echinoids: Reconstructing the past
- 14:30 **M. Fau** & L. Villier
Deep-sea Zoroasteridae (Asteroidea) are not living fossils: Evidences for a peramorphosis-driven evolution of this family
- 14:45 **T. Oji**, N. Landman, J.K. Cochran & A. Tajika
CT-scans suggest that *Lakotacrinus brezinai* is a crinoid with a chemosynthetic mode of life
- 15:00 **B. Thuy**
Was the Triassic ophiuroid radiation triggered by the Carnian Pluvial Event?
- 15:15 **L. Pauly**
Test growth in Paleozoic echinoids: A short review and new morphological data from the Upper Devonian of Germany
- 15:30 **C. Voiculescu-Holvad**, B. Clark & T.A.M. Ewin
The internal anatomy of Middle Jurassic comatulid cups (Comatulida, Articulata, Crinoidea), as revealed by X-ray microtomography, and its implications for the radiation of comatulid crinoids
- 15:45 **C.D. Sumrall**, N.S. Smith, B. Thuy & P.J. Holterhoff
A new understanding of North American, Late Paleozoic brittle star faunas based on microfossils
- 16:00 **M. Reich**, A. Kroh & T.R. Stegemann
Hidden diversity in Mesozoic fossil pluteus larvae (Ophiuroidea and Echinoidea)

16:15 Coffee break

Session 15: General Session
chairs: Marine Fau & Andreas Kroh

16:45	J.P. Féral Standards of initial training in occupational scientific diving (OSD), a necessity for the mobility of echinologists
17:00	M. Bonomo & O. Bronstein High-throughput non-invasive underwater DNA sampling methods – Red Sea echinoderms as a case study
17:15 17:30	Closing Ceremony & Next Echinoderm Conferences

POSTER SESSION 1
MONDAY & TUESDAY, OCTOBER 16–17, 2023

Embryonic & Larval Development

1. A. Aleotti, M. Preti, A. Borsani, J. Devilliers, M. Elphick & M. Sugni

Exploring the effects of neurotransmitters and neuropeptides on the swimming behaviour of crinoid larvae

Ecophysiology, Ecotoxicology & Effects of Global Change Stressors

2. M. Bayat, C. Moreau, L. Katz, M. Delleuze, M. Dogniez, I. George & B. Danis

Exploring the impact of climate change on trophic plasticity and gut microbiome variability: Insights from a southern ocean sea urchin species

3. R. Fernández-Vilert, J.C. Hernández, S. González-Delgado, M. Martín-Huete & R. Pérez-Portela

Effect of acidification on populations of the sea urchin *Paracentrotus lividus* (Lamarck, 1816) using natural gradients

4. A. Mercier & J.F. Hamel

Investigating the mystery of beaching events involving sea cucumbers

5. V. Dettling, Claire Laguionie-Marchais, J.B. Fini & S. Samadi

Can holothurians from the deep-sea of New Caledonia be used to monitor microplastic pollution?

Ecology, Functional Ecology and Morphology

6. J. Hurtado-García & M.E. Manjón-Cabeza

Environmental control on the structure of asteroid assemblages in the Patagonia Argentina

7. J. Heijens, E. Courville, E. Poulin & T. Saucède

Ecological niche evolution within the echinoid genus *Arbacia* Gray, 1835

8. E. McLaren, B. Sommer & M. Byrne

Long term stability of *Centrostephanus* populations in coral associated habitat despite other sea urchin populations declining in the subtropical-to-temperate transition zone of east Australia

9. K.C.K. Ma, F. Gao, J.F. Hamel & A. Mercier

First observations and morphological descriptions of biogenic calcareous microcrystalline structures in an echinoderm

10. S. Williams, H. Carter, C. Laumer, C. Trimble, Y. Kano, S. Putschakarn, S. Banchongmanee & N. Kenny

Genetic control of blue colour in tropical starfish *Linckia laevigata*

Systematics

11. J. Na, D. Zhang, H. Cheng, Y. Zhou & C. Wang

Accelerated and variable evolution rates of Ophiuroidea based on comparative mitochondrial genome

12. S.F. Hiruta, D.H.E. Setiamarga & T. Fujita

Molecular phylogeny of Neoasteroidea (Asteroidea) based on mitochondrial genome

13. A. Hugall, M. Byrne & T. O'Hara

Amphipholis squamata is an allopolyploid swarm

14. J. Lee & T. Lee

Comparative taxonomic analysis of *Holothuria* (*Thymiosycia*) *decorata* and *H. (Mertensiothuria) hilla*

15. C. Moreau, Q. Jossart, M. Cabessut, C. De Ridder, M. Delleuze, J. Vandermeeren, B. Danis & T. Saucède

Systematics of the urchin *Ctenocidaris* (*Eurocidaris*) *nutrix* (Thomson, 1876)

16. Q. Jossart, A. Dettai, C. Moreau, B. Danis, I. Schön & M. Kochzius

Sea star mitogenomes: characterization and utility for phylogenetics

17. T. Mogi, T. Fujita & Y. Kano

Systematic revision of *Ctenodiscus* (Asteroidea, Paxillosida) in Japanese waters

18. C. Buron, C. Moreau, B. Danis & Q. Jossart

Diversity in the deep sea: a case study of the Pterasteridae (Echinodermata: Asteroidea)

19. C. Yuan, C. Wang & D. Zhang

Morphological and molecular phylogenetic analysis of sea cucumbers (Holothuroidea) collected in the Kyushu-Palau ridge

20. A. Lee & T. Lee

Taxonomical revision of *Ophiopholis aculeata* and *O. japonica* based on the mitochondrial COI and morphological analysis

21. C. Moreau, A. Eichsteller, L. Vantomme, E. Kamyab, P. Martinez Arbizu & A. Brandt

Echinoderm diversity in the northeast Aleutian Trench

22. E. Kamyab, S. Khodami, F. Bonk, S. Rossel, J. Taylor, S. Brix & P. Martínez Arbizu

IceDivA Project: The study of diversity of deep-sea holothurians in the North Atlantic Ocean using molecular approaches

23. M. Fau

Revision of the genus *Benthogenia* Fisher, 1911, with description of a new species, and detailed ossicle anatomy

24. A.A. Caballero-Ochoa, B.E. Buitrón-Sánchez, F.A. Solís-Marín, C.A. Conejeros-Vargas & D. Mireles-Velásquez

Skeleton structure of *Nidorellia armata* (Gray, 1840) (Echinodermata: Asteroidea) as archaeological evidence of its presence in the offerings of Templo Mayor, Mexico

25. **A. Eichsteller, A. Martynov, T.D. O'Hara, M. Christodoulou, T. Korshunova,**

G. Bribiesca-Contreras & P. Martinez Arbizu

Ophiotholia saskia: a new brittle star from the Clarion Clipperton Zone

26. **D.L. Soualili, Z. Lebouazda, I. Khodja & K. Mezali**

Focus on the morphological aspect of *Ophioderma* Müller & Troschel, 1840 from the Algerian west coast

27. **M. Reich, G. Paulay, A. Kroh, V. Winkler & H. Hagdorn**

Anal teeth in modern and fossil holothuriid sea cucumbers (Echinodermata: Holothuroidea: Actinopoda)

POSTER SESSION 2

THURSDAY & FRIDAY, OCTOBER 19-20, 2023

Applied Biomedicine and Biomimetics

28. **E. Kamyab, M.Y. Kellermann, M. Reverter, D. Praditya, A.W. Storjohann, M. Köck, J. Wink, E. Steinmann, D. Tasdemir & P.J. Schupp**

Molecular diversity and structure-activity relationship of saponin in Indo-Pacific sea cucumber *Bohadschia argus*

29. **I. Ventura, V. Harman, R.J. Beynon & R. Santos**

Glycoproteins: Are they involved in sea urchin adhesion?

30. **T.N. Olivares-Bañuelos, A.V. Colores-Mendoza & A. Ortega**

Expression of glia transporters GLAST and GLT-1 in the Mexican Pacific sea biscuit *Dendraster excentricus*

31. **N. Lemaire, N. Singh, A. Lin, R. Wattiez, J. Delroisse, M.J. Harrington & P. Flammang**

An investigation of the molecular and structural properties of the mutable collagenous tissue in the European sea cucumber *Holothuria forskali*

Post-Metamorphosis Development

32. **J.R. Thompson, P. Paganos, Z.X. Schultz, L. McMonagle, G. Benvenuto, F. Caccavale, F. Marletaz, M.I. Arnone & P. Oliveri**

Accretionary skeletal growth in post-metamorphic *Paracentrotus lividus* (Echinodermata: Echinoidea)

33. **S. Jobson, J.F. Hamel & A. Mercier**

Autotomy in the apodid sea cucumber *Chiridota laevis*

Collections and History of Echinoderm Research

34. **M. Christodoulou**

The echinoderm collection of the Biologiezentrum (OÖ Landes-Kultur GmbH), Linz, Austria

35. **J. Thomas & Récolnat team**

Récolnat: a digital platform for the promotion of 350 years of natural history collections

36. **H. Hagdorn, M. Reich, B. Gaitzsch & J.W. Schneider**

The type material of the iconic Muschelkalk 'stone lily' *Encrinus liliiformis* Lamarck, 1801 (Triassic, Crinoidea)

Biogeography: Past, Present and Future in a Changing World

37. **C. Moreau, L. Katz, A.N. Mironov, M. Christodoulou, P. Martinez Arbizu, A. Eichsteller, S. Brix, Q. Jossart, L. Vantomme & B. Danis**

Phylogeography of the deep-sea benthos: Results from the abyssal sea star family Porcellanasteridae (Asteroidea, Echinodermata)

38. **A. Macias-Ramirez, L.M. García-Guillén & M.E. Manjón-Cabeza**

Ophiuroidea of the Avilés Canyons System (INDEMARES + LIFE Project)

39. **A.A. Caballero-Ochoa, B.E. Buitrón-Sánchez & F.A. Solís-Marín**

Distributional congruence and species richness of echinoderms in the East Pacific

40. **A. Bujalance Silva, J. Hurtado-García, F. Moya Ruiz, Th. Saucède & M.E. Manjón-Cabeza**

Preliminary results of the study of the echinoids of the Scotia Arc (Antartica)

41. **M. Martín-Huete, C. Leiva, L. Pérez-Sorribes, M. Peralta-Serrano, S. González-Delgado & R. Pérez-Portela**

Adaptation and divergence patterns in the spiny sea star *Marthasterias glacialis*

Palaeontology

42. **B. Lefebvre, Y. Candela, E. Nardin, T. Servais & B. Mottequin**

Late Ordovician echinoderms from the Brabant Massif (Belgium): Taxonomic revision, palaeoecology and palaeobiogeographic implications

43. **B. Lefebvre, M.E. Cournoyer, P. Isotalo & T.E. Guensburg**

Taxonomic revision of the first described stylophoran echinoderm: *Ateleocystites huxleyi* Billings, 1858

44. **A. Cincotta, B. Lefebvre, P. Guériau, S. Olive & B. Mottequin**

A possible peltocystid mitrate (Stylophora) in a new Praguian (Early Devonian) Konservat-Lagerstätte from Belgium

45. **M. Nohejlová**

Cambrian gogiid eocrinoids from the Barrandian area: Re-evaluation of their diversity

46. **T. Boisset, B. Lefebvre, R. Mooi, A. Kroh, V. Winkler, J. Adrien & M.J. Martin**

Insights into stylophoran anatomy and taphonomy based on an exceptionally preserved mitrate from the Lorraine Group (Upper Ordovician) of New York, USA

47. **Y. Ishida, M. Tagiri, T. Kato, S. Tsunoda, Y. Nakajima, B. Thuy, L.D. Numberger-Thuy & T. Fujita**

Exceptionally well preserved *Stegophiura* (Echinodermata, Ophiuroidea) fossils from the Pliocene of central Japan

48. **L.D. Numberger-Thuy, Y. Ishida, E. Doi & B. Thuy**

Unexpected brittle-star diversity in the Carnian (Upper Triassic) of SW-China and Japan

49. **L. Pauly**

A new echinoid fauna from the Famennian of Velbert (W Germany) and its implications for Late Devonian evolution of sea urchins

50. **F. Noirit, J.A. Waters, J.E. Bauer, J. Le Mort & B. Lefebvre**

First results of the revision of the eublastoids (Echinodermata) from the Devonian of the Armorican Massif (NW France)

51. **E.E.O. Cutcliffe, E.G. Mitchell, J.R. Thompson, T.A.M. Ewin & I.A. Rahman**

Quantifying tiering of crinoid communities using a new echinoderm Lagerstätte from the Jurassic of Wiltshire, UK

52. F.A. Raquet, D.B. Blake & B. Lefebvre

A new multiarmed asteroid from the Lower Devonian of Morocco

General Session

53. N.E.H. Belkacem, I. Khodja & K. Mezali

Nutritional quality and culinary and nutraceutical valorization of sea cucumbers from the Mostaganem region (Algeria)

54. R. Hocde, G. Thouzeau, S. Bourquin, L. Borel, M. Coulange, J.P. Féral, E. Feunteun, S. Jacquet, P. Le Bras, L. Le Gall, S. Legrand, P. Lenfant, M. Lepage, C. Play, G. Saragoni & Q. Schull

Scientific diving in France: an overview of the current practices in science

Proceedings of the conference

The proceedings of the conference will be published free of charge in a thematic volume of the journal ***Cahiers de Biologie Marine***, which is an international, indexed and peer-reviewed publication (IF = 0.527) edited by the Roscoff Marine Station (France). This journal has already edited the proceedings of the 14th International Conference on Echinoderms, held in Brussels in 2012 (*Cahiers de Biologie Marine*, volume 54, published in 2013).

The deadline for manuscript submission is **March 31st 2024**.



PRE-CONFERENCE EXCURSION TO VILLEFRANCHE-SUR-MER MARINE STATION (October 11th-15th, 2023)

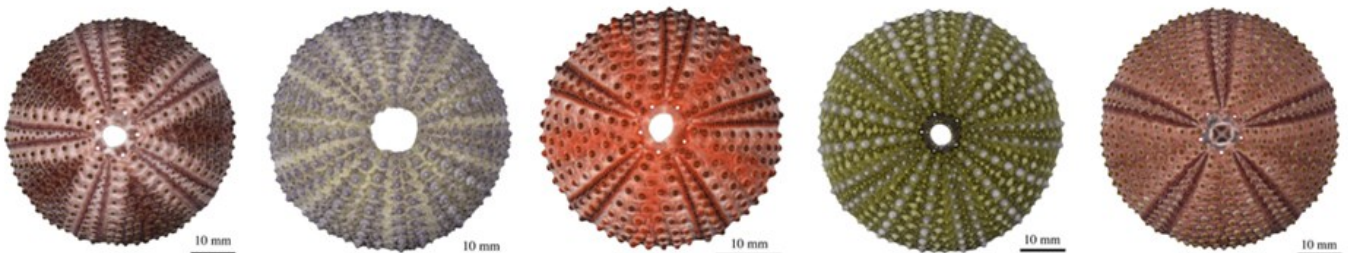


Overlooking one of the most beautiful harbours in the world, the city of Villefranche-sur-Mer (situated on the French Riviera, Côte d'Azur, southern France, between Nice and Monaco) offers an exceptional and unexpected setting with its 16th century Citadel, a historic monument housing the City Hall and cultural center (Museums, Auditorium, Théâtre de Verdure), Royal Port of "Darse", chapels (Saint-Pierre de Villefranche-sur-Mer chapel decorated by Jean Cocteau, Saint Elisabeth, Saint Elme and Saint Michael's church), and medieval and magical "rue Obscure" street. For those interested, the excursion may include a visit to the nearby Leyrens islands and Oceanographic Museum of Monaco.

Established in 1885 by Alexis de Korotneff (University of Kiev) and Carl Vogt (University of Geneva), the Villefranche-sur-Mer marine station (Institut de la Mer de Villefranche - IMEV) operates and maintains one of the three longest-running deep marine environmental monitoring stations in the world as well as an important long-term pelagic observation program. Research topics include developmental biology, pelagic and coastal oceanography, biological and biogeochemical cycles in marine environment, carbon cycle, phytoplankton production, and biological diversity of zooplankton communities.

Marine research facilities include access to the RV *Sagitta II* ship (trawler) for sea trip (plankton nets, oceanographic instruments for biological and physical monitoring), scuba diving for access to marine ecosystems and echinoderm sampling, laboratories, technological platforms, and climate control rooms with access to all basic research equipment (molecular biology, microscopic imaging).

More information: thomas.saucede@u-bourgogne.fr



MID-CONFERENCE ACTIVITIES (OCTOBER 18TH, 2023)

Four activities will be proposed to participants (and accompanying persons) on Wed. 18 Oct.

(1) Access to all facilities and visit of the Zoological Collections of Lyon 1 University. The University of Lyon Zoological collections are world-famous for hosting the collections of Pr. René Koehler (1860–1931), comprising over 800 vials containing echinoderm specimens (including 8 holotypes) collected during the sea campaign of the Caudan (1895) in the Gulf of Gascogne.

This activity is free, but registration is compulsory and limited to 15 participants on a first-come, first-served basis, according to the reservation order.



(2) Access to all facilities and visit of the Palaeontological Collections of Lyon 1 University. These collections are the second largest ones in France (after the Muséum national d'Histoire naturelle in Paris). They are hosting over 1,800 types and figured specimens of fossil echinoderms (e.g. Barrande, Caillet, Cotteau, Lissajous, Sayn, Thorall, de Verneuil, Vizcaino collections).

This activity is free, but registration is compulsory and limited to 15 participants on a first-come, first-served basis, according to the reservation order.



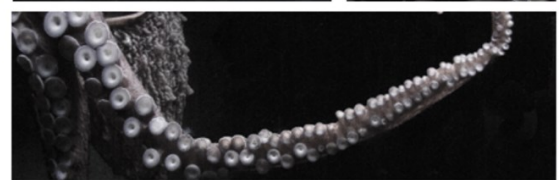
Please note that the Zoological and Palaeontological collections will be both closely associated to the conference, and will remain accessible to all participants before, during and after the meeting.



(3) Guided tour of the **Lyon Aquarium**

(<https://www.aquariumlyon.fr/en/>)

Registration (15 €) is limited to 15 participants, on a first-come, first-served basis, according to the reservation order.



(4) One-day field excursion to Ardèche. This one-day excursion will bring all the participants to visit the palaeontological collections of the Musée de l'Ardèche (<https://museum-ardeche.fr/en/>), which is hosting iconic fossils from the famous Callovian (Middle Jurassic) La Voulte Lagerstätte. Several fossiliferous sites yielding Jurassic echinoderms (mostly crinoids and ophiuroids) will be also visited, including the La Voulte Lagerstätte itself. A convivial stop (wine tasting) in a local cellar is also scheduled.

Registration (80 €) is limited to 60 participants, on a first-come, first-served basis, according to the reservation order.



REGISTRATION

Online pre-registration to the conference, the gala dinner, all excursions and activities now open on the conference website <https://ece11.univ-lyon1.fr>

Please note that it will not be possible to register (or pay for registration) during the conference.

The registration fee to the conference includes the abstract volume, the ice breaker reception, the coffee breaks, the four lunches, full access to university collections during the conference, and tickets for public transportation in Lyon.

Accompanying persons are welcome to all social events and mid-conference activities.

Please send us your *special diets or food allergies* by email to ece11@univ-lyon1.fr if necessary.

Registration Fees to the conference (after July, 15th):

Junior participants (undergraduate and PhD students, post-doctoral fellows, unemployed researchers)	300 €
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Senior participants	400 €
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Other registrations fees:

Pre-conference excursion (Oct., 11-15 th)	Complete
Lyon Aquarium (Oct. 18 th)	15 €
Field excursion to Ardèche (Oct. 18 th)	80 €
Gala dinner (Oct. 19 th)	80 €



IMPORTANT DATES

January 31st, 2023

First Circular

March 10th, 2023

Deadline for suggestions for workshops and scientific sessions

Second Circular

Opening of abstract submission

Opening of pre-registrations

March 31st, 2023

Opening of registrations for conference and excursions

May 31st, 2023

Deadline for abstract submission

June 15th, 2023

Decisions on abstracts

Deadline for registration to pre- and mid-conference excursions

July 15th, 2023

Deadline for early-bird registrations

July 30th, 2023

Third Circular, with full-program of conference and excursions

March 31st, 2024

Deadline for submission of manuscripts to the proceedings volume in *Cahiers de Biologie Marine*



Lyon is the third-largest city and the second-largest urban area of France. It is located at the confluence of the rivers Rhône and Saône, about 500 km southeast of Paris. Former capital of the Gauls at the time of the Roman Empire, birthplace of the cinema (Lumière brothers) in the late 19th century, Lyon is now recognized for its cuisine and gastronomy, as well as for its historical and architectural landmarks: e.g. the districts of Old Lyon, the Fourvière hill, the Presqu'île and the slopes of the Croix-Rousse that are registered on the UNESCO World Heritage List. For those interested in the Rugby World Cup, Lyon is hosting two matches the week before the pre-conference excursion: New Zealand - Uruguay (October 5th, 2023) and France - Italy (October 6th, 2023).

Its central position in France makes it very easy to reach by any means of transportation.

By train

Lyon has three main train stations (Part-Dieu, Perrache and Vaise stations) that are linked to many French and European cities (e.g. Paris-Lyon = 2h; Geneva-Lyon = 2h).

By plane

The Lyon Saint Exupéry airport is situated about 20 km east of the city centre and is connected to the main train station (Part Dieu) by the Rhône Express tramway (less than 30 min trip; departure every 15 minutes from 4.25am to midnight). The airport is connected to most major European cities.

By car

The central position of Lyon makes it also easy to reach it by car. But note that, in the city, it is difficult to find a parking spot and parking fees are expensive. Parking close to the conference venue is much cheaper/easier.

Public transport in Lyon

In your conference bag, you will be given five daily passes that will allow you to use freely the public transports of the city during all the conference.



CONFERENCE VENUE

The conference will be held next in the same building (Darwin) as the **Zoological and the Palaeontological Collections**.

The venue is situated just in front of the tramway T1 & T4 stop "Université Lyon 1", which is three stops away from the Metro lines A and B station "Charpennes".



The Charles Depéret lecture hall (250 seats) is equipped with computers, video projectors, and video cameras. Free wifi connection will be available in the lecture hall and in the congress building. Smaller rooms for meetings and workshops, equipped with computers and video projectors will be also available.

The University of Lyon Zoological collections are world-famous for hosting the collections of Pr. René Koehler (1860–1931), comprising over 800 vials containing echinoderm specimens (including 8 holotypes) collected during the sea campaign of the Caudan (1895) in the Gulf of Gascogne. The University of Lyon is also hosting the second largest palaeontological collections in France (after the Muséum national d'Histoire naturelle in Paris). They are hosting over 1,800 types and figured specimens of fossil echinoderms (e.g. Barrande, Caillet, Cotteau, Lissajous, Sayn, Thorall, de Verneuil, Vizcaino collections). The Zoological and Palaeontological collections will be closely associated to the conference, and will remain accessible to all participants before, during and after the meeting.

Université Claude Bernard Lyon 1

La DOUA

DARWIN D building

Tramway T1 & T4

"Université Lyon 1" Stop



Tramway T1 & T4

ACCOMMODATION

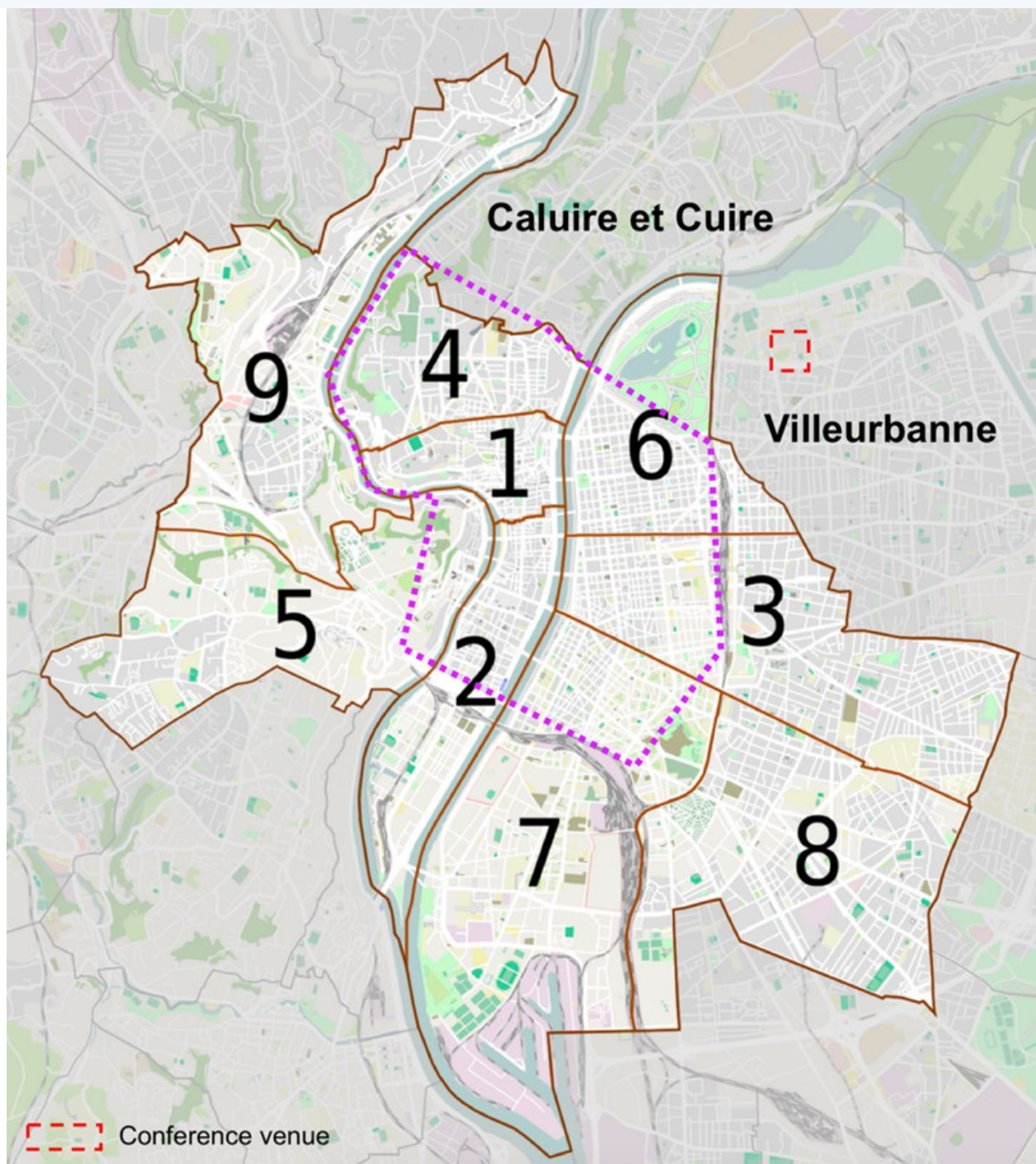
Lyon is an important touristic destination that can offer all kind of accommodations, from luxury hotels to bed & breakfast and hostels.

Rooms can be booked easily online on websites such as <http://www.booking.com> or www.tripadvisor.fr

We suggest choosing a hotel near the city centre from which you can reach anywhere in the city (including the conference venue) in less than 30 min. The map of Lyon's districts below shows the nicest parts of the city circled in purple. You may also find cheaper accommodation in Villeurbanne and Caluire-et-Cuire.

We will offer some discounts in a selection of hotels. More information on our website:

<https://ece11.univ-lyon1.fr/en/pages/ece-11-2023-accommodation>



Please note that accommodation booking and payment cannot be taken by 11th ECE organisers.

CONTACT



<https://ece11.univ-lyon1.fr/en>



ece11@univ-lyon1.fr



Université Claude Bernard Lyon 1

Cellule Congrès - ECE11

Bâtiment GEODE - R1

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Université Claude Bernard



Lyon 1

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