



INCISE International Network
for submarine Canyon
Investigation and
Scientific Exchange



UCC

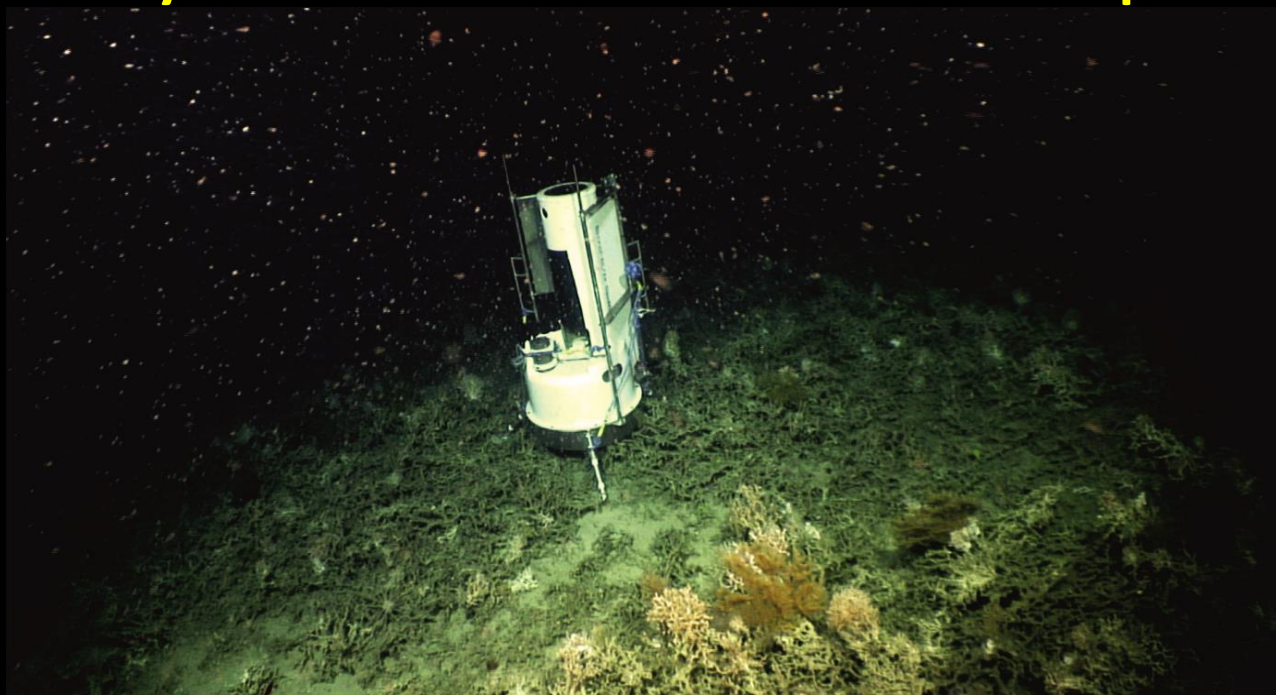
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Second Circular

INCISE 2020

Conference & Workshop

“Canyons: human connections to the deep sea”



15th-17th June 2020

Workshop 14th June - Litter in submarine canyons: source to sink

University College Cork, Ireland

<https://www.incise2020.com/>

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An Roinn Cultúir,
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Heritage and the Gaeltacht



INCISE, the International Network for Submarine Canyon Investigation and Scientific Exchange is an initiative that aims to bring together scientists working on all aspects of submarine canyon research, and to stimulate discussions across all disciplines.

Background

Submarine canyons are complex and important bathymetric features that can be found around the world. Despite their widespread occurrence, little is known about their formation, sedimentary processes, oceanography and faunal communities, leaving important questions about their sustainable management and the potential use/protection of the resources they host. The aim of the INCISE network is to help to address these questions and aid scientific exchange between submarine canyon researchers. In addition to organising symposia, the INCISE community (over 250 members) contributes to science through various outputs. In 2014 INCISE published its first special issue (Deep-sea Research II, vol 104), and a 2nd one published in Progress in Oceanography (vol 169) in 2018.

Venue

INCISE 2020 will take place in Boole 1, University College Cork. UCC was the first University in Europe to be awarded a gold star from the Association for the Advancement of Sustainability in Higher Education.

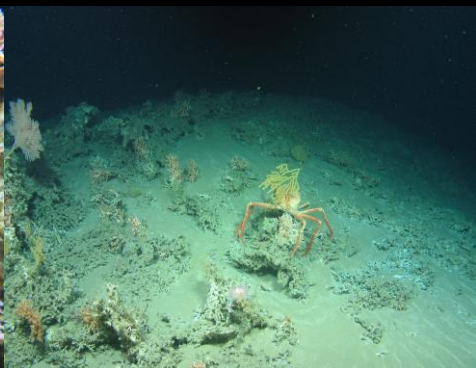
INCISE 2020 will be hosted by the UCC Marine Geology Research Group in the School of Biological, Earth & Environmental Sciences



Location

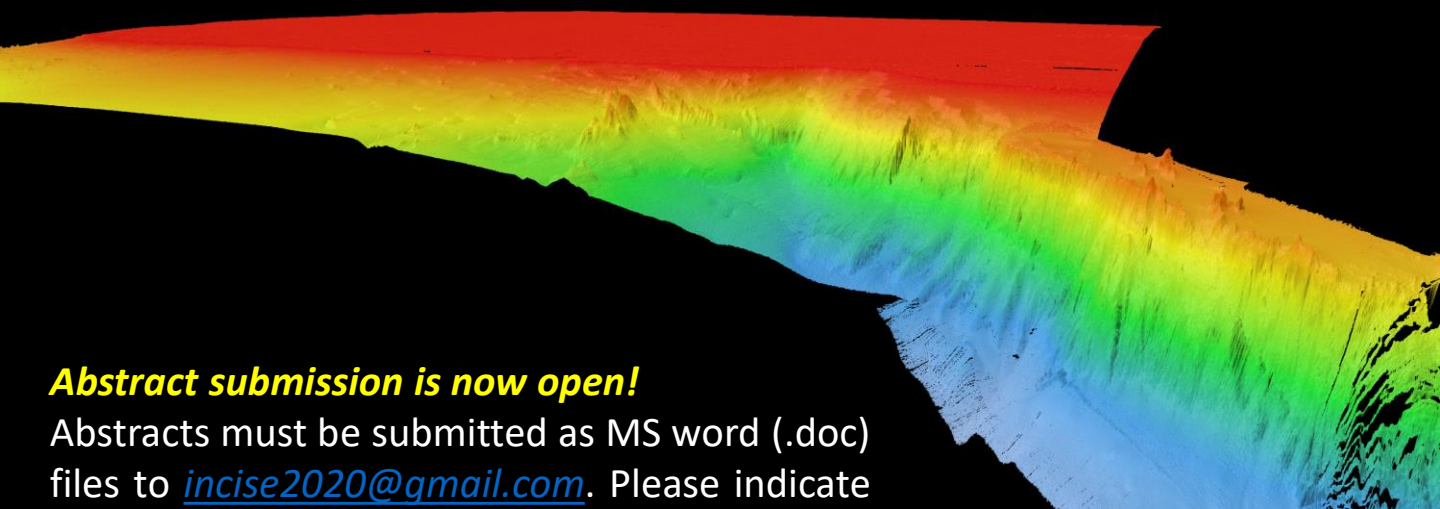
Located in the South West of Ireland, Cork City is the second largest city in Ireland and is situated along the estuary of the River Lee. The city has gradually climbed up the steep banks on either side and the river now flows through the city in two channels. The best way to see the city is on foot, with signposts to show you the way. More information can be found at: <https://www.cork-guide.ie/corkcity.htm>.





Themed sessions

- Canyon processes in space and time
- Natural geological and physical anthropogenic disturbances and their impact on biological communities
- Submarine canyons as species' refuges
- Policy for submarine canyon conservation development
- Abstracts from outside these themes will also be considered



Abstract submission is now open!

Abstracts must be submitted as MS word (.doc) files to incise2020@gmail.com. Please indicate your preferred session theme from the list above and your preference for an oral or poster presentation.

All abstracts must comprise of a title, Author(s), Author affiliations (numbered) and the abstract text. All abstracts must adhere to the template which can be downloaded from the INCISE2020 website.

The abstract submission deadline is 6th March 2020. All abstracts will be evaluated by the INCISE scientific committee by mid-March.

Important dates

2020

- February – Abstract submission and registration **OPEN**
- 6th March – Abstract submission **CLOSED**
- End of March – Authors notified, and program announced
- Sunday 14th June – Workshop & Ice-breaker
- Monday 15th June – Conference talks and dedicated poster session
- Tuesday 16th June – Conference talks and conference Dinner
- Wednesday 17th June – Conference talks and working groups
- Thursday 18th June – Fieldtrip

Registration

Registration is open on the website <https://www.incise2020.com/>. Delegates will be given the option to attend the workshop and field trip.

Fees

Workshop = €43.55

Field trip (optional) = €52.60

Conference Registration (incl. conference dinner) = €196.00

Student Registration (incl. conference dinner) = €99.00



Keynote Speakers

Dr. Joshu Mountjoy

Joshu Mountjoy is a Marine Geologist who has spent the majority of his research career studying the dynamic sedimentary systems on New Zealand's Hikurangi subduction margin. This has broadened from studying the role of active tectonics in submarine canyon formation to forging links into oceanography, ecology and fluid systems. After the 2016 Kaikoura Earthquake Joshu was fortunate to lead a team to study the dramatic impact of the earthquake on the Kaikoura Canyon which illustrated an actual example of the processes we study in the geomorphic and geological record, and in the study of benthic ecosystem disturbance. The event far exceeded any expectation of human observations of deep ocean seafloor change, and is likely to be a once in a life time opportunity.



Dr. Kostas Kiriakoulakis

Kostas Kiriakoulakis is a Senior Lecturer in the School of Biological and Environmental Sciences at Liverpool John Moores University having over 20 years' experience in the study of organic matter with the use of elemental, molecular and isotopic techniques. He has worked in a range of settings and time scales, ranging from ancient rocks to modern marine sediments and particles, although the bulk of his work is focused in the deep ocean. Kostas has worked closely with physical oceanographers and ecologists to examine the biophysical and biogeochemical processes that affect the supply and nutritional quality of organic matter in the deep sea. He is particularly interested in understanding the role of organic matter in marine carbon cycling and the functioning of vulnerable marine ecosystems, such as cold water corals, that are located in topographically complex habitats, such as seamounts and submarine canyons.

Keynote Speakers



Dr. Martina Pierdomenico

Martina Pierdomenico, is a young Researcher at the Institute for the Study of Anthropic Impact and Sustainability in the Marine Environment (CNR-IAS). The bachelor degree in Natural Sciences (2008), master degree in Marine Sciences (2011) and PhD in Earth Sciences (2016), obtained at the University of Rome Sapienza, gave her a broad training on Earth and Life sciences, including a strong focus on environmental issues. Her current research focuses on the study of seafloor habitats, with a specific emphasis on the interplay between geological and sedimentary processes, anthropogenic stressors and biological communities in complex environments such as submarine canyons, volcanic islands, coralligenous build-up and cold-water coral mounds. Her multidisciplinary approach combines a wide range of methodologies (including geo-acoustic data, ROV surveys, sediment samples and oceanographic measurements) to obtain a comprehensive characterization of seafloor environment to provide understanding for the sustainable management and conservation of marine ecosystems located from the continental shelf to the deep-sea areas



Dr. Nathalie Valette-Silver

Nathalie has been with the National Oceanic and Atmospheric Administration for 31 years, starting as the Science Coordinator for the National Centers for Coastal Ocean Science in NOAA/NOS. In 2011, she joined NOAA/OER where she was initially the Undersea Exploration, Research and Technology Science Coordinator until the program was terminated. In that role, she steered and coordinated the science produced by the NURP Centers and coordinated community ocean exploration and undersea research programs. After NURP termination, she became the Program Lead for OER Federal Funding Opportunity, working extensively with academia and other groups interested in deep-ocean exploration. Dr. Valette-Silver earned her degrees in France (Universities of Paris Sorbonne and Montpellier): a PhD in Oceanography, two Master's Degrees in Oceanography and a graduate degree in geology/sedimentology. She also graduated from the Ecole Normale Supérieure in Paris, France where she earned the "Aggregation", an accreditation in University teaching, and taught at the University of Maryland for seven years. She has a broad scientific background and extensive experience in scuba diving and in seagoing expeditions.

INCISE Working Groups

The aim of the working groups is to create a forum for multidisciplinary discussions on current topics which lead to a tangible output within a 2-year timeframe. Previous WG output examples are review papers, articles and databases.

WG 1: Litter in canyons (Peter Harris)

The litter working group will build on work undertaken during the INCISE workshop (litter in submarine canyons). The aim of the WG will be to achieve a review, or section in a special issue; a template and database for litter studies in canyons and ultimately an analysis of litter in canyons data (may reach beyond the 2-year time-frame).

WG 2: Conservation & outreach (Jaime Davies & Nathalie Valette-Silver)

The conservation & outreach working group was established in 2014 and aims to identify current conservation issues which canyons face and produce outputs which help tackling these issues. The WG also aims to provide outreach materials to disseminate conservation of submarine canyons to the wider scientific community and general public.

WG 3: Submarine landslides & geohazards inside submarine canyons. (Joshu Mountjoy)

Sediment failures and submarine landslides are some of the main processes that initiate canyon formation, and shape/maintain canyon morphology. This WG will discuss and review the specific mechanisms of sediment failure in the unique setting of submarine canyons (frequency, volume, triggers) and evaluate the geohazard potential of submarine canyons to with regard to tsunamigenesis and potential damage to infrastructure.

WG 4: How to study submarine canyons (Pere Puig & Awantha Dissnayake)

A topical working group that will look at how to study a submarine canyon using expertise and experience from the INCISE community. The WG will discuss and develop (through a publication) a plan of how to approach sampling a new canyon, with the desire to undertake some of this during an INCISE field course.

The WG will discuss the most effective way to sample a new canyon, including:

- acquisition and classification of acoustic data
- survey design and equipment to collect baseline biological data
- oceanographic data

INCISE workshop

Litter in submarine canyons: source to sink

Marine litter is now a well-documented threat to marine ecosystems and has been found even at the deepest depths, where little is known about the magnitude and consequences of the problem. Submarine canyons act as conduits transporting sediment and nutrients from shallow water to the deep. As this transport system is not discriminative of what it transports, litter is also increasingly being funnelled through canyons. Many canyons are close to the continental shelf and can be spatially connected with rivers (i.e. one of the main sources of marine litter worldwide), and thus maybe subject to higher densities of domestic litter. Canyons affected by heavy fishing pressure may accumulate high densities of fishing-related debris.

Submarine canyons are important topographical features, which are vulnerable to anthropogenic impacts. To date, concerns have focused on impacts from fisheries, but it is now becoming apparent that marine litter is also a great threat to canyon ecosystems.

The half day workshop will cover all aspects of litter in submarine canyons:

- Sources of litter – from macro to nano sizes
- Source to sink transport
- Types of litter found in canyons (macro and micro) and their distribution
- Microplastics in marine systems and their transport pathways, transformations and environmental residence times
- Effects of litter on taxa
- Toxicity, particularly microplastics as a transport mechanism for toxins

The aim of the workshop is to set the scene on litter research in canyons (through expert talks), provide guidance on how to study/sample different types of litter from canyons, and finish with a Q&A/discussion session on future research work in this field, particularly as a coordinated team within the INCISE community.

Spaces are limited so book early!

Workshop Leaders



Dr. Martina Pierdomenico
Consiglio Nazionale delle
Ricerche



Dr Michael Clare
National Oceanography
Centre, Southampton



Dr Awantha Dissanayake
University of Gibraltar

How to get here

By air

Cork Airport is located 10 minutes from Cork City. Bus and taxi services are available outside Arrivals. More information can be found at: <https://www.corkairport.com/>.

By train

Cork Kent station is serviced by several routes daily. It is only a 10-minute walk from the City Centre. More information can be found at: <https://www.irishrail.ie/>.

By car

Cork is located just 2.5 hours from Dublin by car. There is ample parking available throughout the city and with most accommodation providers.

By bus

Cork has a high-quality bus route network that connects the city with Dublin, Limerick and Galway. More information can be found at: <https://www.citylink.ie/routes>.

More info can be found at:
<https://purecork.ie/plan-your-trip/travel/getting-to-cork>.



Weather

Influenced by the warm waters of the Gulf Stream and the Southwestern winds from the Atlantic, Ireland's climate consists of cool summers and mild winters. Although the conference is during the summer month of June, we recommend bringing an umbrella as the rain usually makes an appearance!!

Accommodation

Delegates are responsible for organizing their own accommodation. The local INCISE committee have put together a list of suggestions with reduced rates:

The Kingsley Hotel (where the conference dinner will also be held)

Overlooking the historic The River Lee, The Kingsley offers 131 bedrooms perfectly designed for your comfort. Whether you are visiting for business or pleasure, our Cork City hotel ensures a sense of tranquility. Choose the room that best suits you, ranging from our Classic or Deluxe King Room Suites, three luxurious Junior Suites or a lavish two-story Penthouse. ***Quote: INCISE 2020 - 30 rooms per night from the 14th to the 18th of June 2020 at a rate of €150.00 single occupancy or €165.00 double occupancy including breakfast, onsite parking and access to the Health Club. Bookings must be made directly with the hotel (not on their website).***



Clayton Hotel

A 4-star modern hotel ideally located in the heart of Cork City and close to some of Cork's iconic landmarks such as The English Market and Cork City Hall. The hotel offers stylish, modern rooms and suites featuring luxury King Koil beds and boasts an Essence Spa and Club Vitae Gym with 18 m swimming pool.

Quote: INCISE 2020 when booking. Prices are €186 per single; €199 per twin or double. This also includes access to gym & pool. Bookings must be made directly with the hotel (not on their website).



Hotel Isaacs

Located in the heart of Cork City's Victorian Quarter, less than 10 mins walk from the Train & Bus station and St. Patricks Street. A former Tobacco Mill still boasting the original features the hotel is known for. Also home to Irelands best Cocktail bar Cask and renowned Greenes Restaurant.

Quote: INCISE 2020 when booking. Prices are €145.00 per room per night B&B for single occupancy/ €160.00 per room per night B&B for double occupancy. Bookings must be made directly with the hotel (not on their website).



There are a wide array of other hotels and B&B's across the city. We recommend to choose one within walking distance of University College Cork.

Ice-breaker

The ice-breaker will take place in the Franciscan Well Brewery, one of Ireland's longest established and best respected craft breweries. Founded in 1998, the brewery was built on the site of an old Franciscan monastery (dating back to the year 1219).



Conference dinner

The Canyon-themed conference dinner will take place in the Kingsley Hotel. Upon arrival, delegates will be greeted with a themed cocktail drinks reception. This will be followed by a four-course meal with tea/coffee. More information can be found at: <https://www.thekingsley.ie/>.



Excursion

Taking place on Thursday 18th of June, the fieldtrip will take delegates on a historic journey to scenic harbour town of Cobh by train. The first stop will be the 'Titanic Experience' as Cobh was the last port of call for the ill-fated luxury liner. This will be followed by lunch in the Commodore Hotel. Delegates will then board the ferry to Spike Island, host to a 6th century Monastery, a 24-acre Fortress. It was the largest convict depot in the world in Victorian times. Delegates will then return to Cork City via train.

