

# THE G(e)OSSIP

The official newsletter of the Geology Department

28 October 2021 | Issue 8

## WELCOME

Autumn has greeted us with COVID restrictions being lifted and a semi-normal return to life. The University is open to the public and social distancing measures are now a thing of the past.

The Geology Common Room has reopened on the top floor of the Museum Building. Coffee breaks and Friday beers will kick-off again soon, so stay tuned!

**SAVE THE DATE!** Our annual Geology Department holiday party is scheduled for **December 2<sup>nd</sup>**! More details to follow.

Our newsletters are archived and uploaded on the Geology website. You can access them [here](#).

The G(e)ossip will be released on the last Thursday of each month. If you have feedback or anything to be added to upcoming newsletter issues, please send us an email at [geossip.tcd@gmail.com](mailto:geossip.tcd@gmail.com).

-The G(e)ossip Team

## NEW ARRIVALS

With a new semester comes new PhD students. We'd like to extend a warm welcome to our new researchers and can't wait to meet you all in person!

**Yan Wang**, supervised by Micha Ruhl

**Li Zhang**, supervised by Micha Ruhl

**Fay Astutz**, supervised by Mike Stock

**Shujing Zhang**, supervised by Dave Chew

**Didi Wu**, supervised by Dave Chew

We'd also like to welcome the new MSc research students to the Geology department!

**Talha Ucar**, supervised by Sean McClenaghan

**Joel Fumbwe Katuku**, supervised by Chris Nicholas

## VIVAS

Congratulations to Maria Teresa Guerra on a successful PhD viva defence. Maria Teresa's thesis is titled *Contribution of submarine groundwater discharge (SGD) to the marine carbonate biogeochemistry of western Irish coastal seas*.

## MENTAL HEALTH MATTERS

TCD's Student Counselling Services is open and available to all registered students.

Check out their website to read about the services they provide [here](#), email them at [student-counselling@tcd.ie](mailto:student-counselling@tcd.ie) to request an appointment, and follow them on Instagram at [@tcd\\_headspace](#) for tips on mindfulness and mental health awareness.

[European Association of Geochemistry](#)

Juan Diego Rodriguez-Blanco was selected for this year's European Association of Geochemistry Distinguished Lecture Program. Online lectures (via Zoom) will be on Mondays at 12:30 during the month of November. Click [here](#) for more information or to register.

- 8 November** - *Adventures in crystallisation: How to produce synthetic minerals. Not as easy as it looks!*
- 15 November** - *Using synchrotron light to find solutions to our energy problems*
- 22 November** - *From atoms to minerals: how calcium carbonates form and why we should care*
- 29 November** - *Mechanistic insights into the formation of rare earth carbonates*

[Irish Geological Association](#) lectures are held at the end of each month. Register at [info@geology.ie](mailto:info@geology.ie)

[Ore Deposits Hub](#)

**3 November** - Ali Jaffri, *The Colorado Plateau Uranium-Vanadium Model - What makes it tick?*

**17 November** - Lingli Zhou, *Critical metals in Irish sphalerite and what they become in Zn-Pb tailings*

## SCIENCE COMMUNICATION



*I'm a Scientist, Get me out of here* is a student-led online engagement activity connecting school students with working scientists from across Ireland. Inspire the next generation of scientists and help students see science as relevant to their lives by taking part in instant messaging-style chats, and answering follow-up questions. The event runs from 8 November to 3 December. Find out more and apply to take part [here](#).



# IQUA

Irish Quaternary Association  
Cumann Ré Cheathartha na h-Éireann

The Irish Quaternary Association (IQUA) is engaged in welcoming emerging researchers into their community. Undergraduates are offered free membership and postgraduates have discounted membership. Be sure to check them out on Twitter at [@Quaternary\\_Irl](#) or contact them via their postgrad reps (Ryan Smazal at [d00242675@student.dkit.ie](mailto:d00242675@student.dkit.ie) or Adrienne Foreman at [a.foreman1@nuigalway.ie](mailto:a.foreman1@nuigalway.ie)) for more details information.

# iCRAG 2021

Resources for a Sustainable Society

## SAVE THE DATE

iCRAG2021 is a virtual research showcase of the Centre's achievements and impacts since establishment, and will highlight the new directions and research areas that the Centre will undertake in the coming years.

We look forward to bringing together researchers, industry partners and other stakeholders as we explore how iCRAG can continue to aid in providing the resources needed for a sustainable society.

Thursday 2nd December 2021

Online



EARTH SYSTEM CHANGE



EARTH RESOURCES



EARTH SCIENCE IN SOCIETY



PLATFORM TECHNOLOGIES



FULL PROGRAMME TO FOLLOW

Thursday, 2 December 2021 (13:15-17:00)  
Click [here](#) for more information and to register.

## NOVEMBER IS ACADEMIC WRITING MONTH @ SLD

TCD's Student Learning Development supports Trinity students to reach their academic potential. They offer a range of services including individual appointments, workshops and skills events. Check out their website [here](#) for services offered and upcoming workshops.

**TIP TALKS Workshops** are coming in November. This series of 8 x 30 minute workshops focuses on specific areas of Academic Writing including:

- Analysing titles
- Building an argument
- Writing intros & conclusions
- Editing & proofing your work

View the full schedule [here](#).

### COVID-19 UPDATE

WASH YOUR HANDS



WEAR A MASK



Although COVID restrictions are being lifted, please continue to wear masks in all indoor settings and wash your hands. Make sure to stay up-to-date on all TCD COVID statements [here](#).

### LABORATORY UPDATES

Now that lab capacity has increased, there are a few things to bare in mind:

#### RISK ASSESSMENT

A reminder that before any lab work starts, a risk assessment must be completed and approved by the lab manager and the PI.

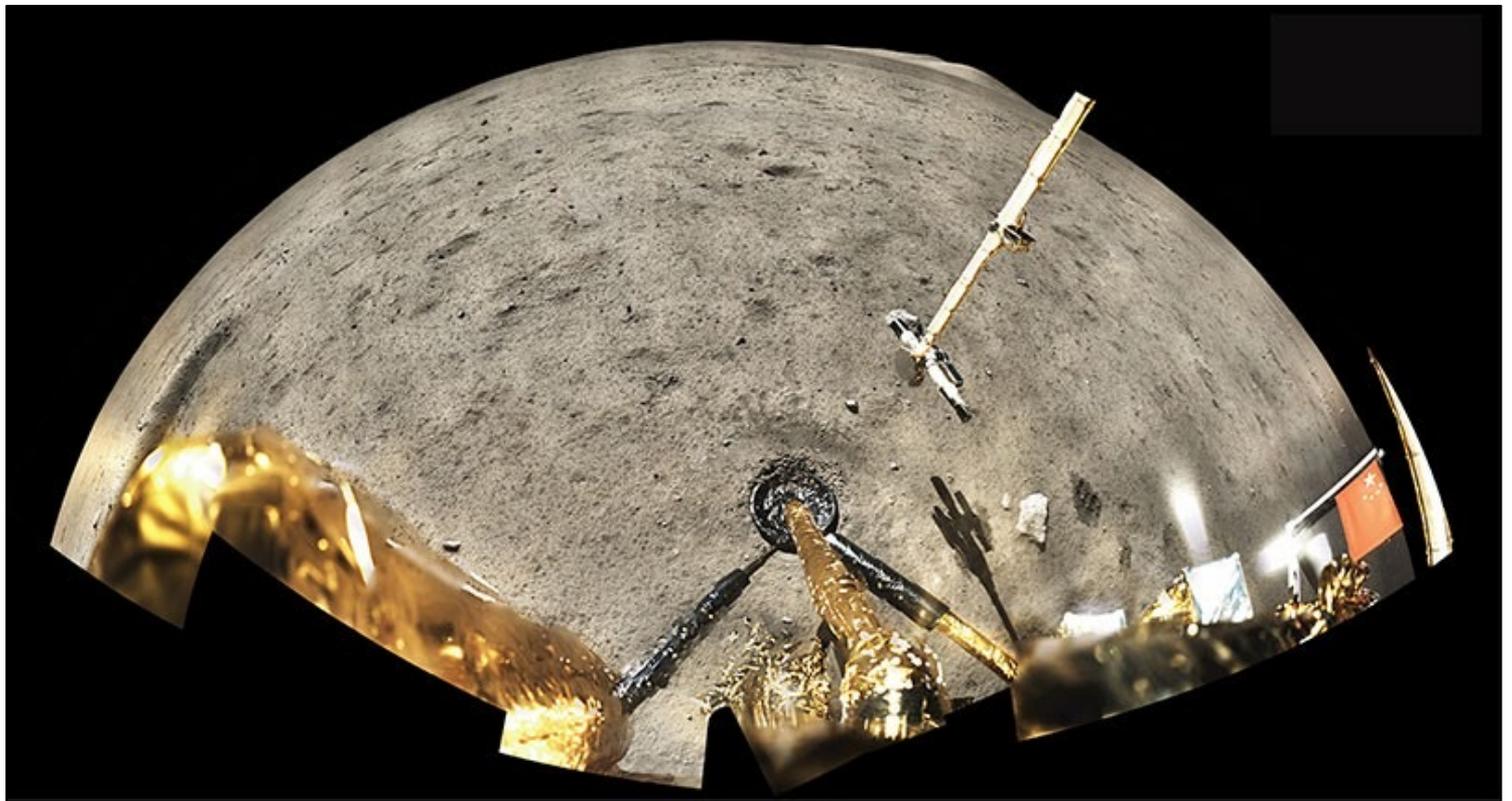
#### LAB BOOKING

Booking systems are in place for laboratory facilities. To book Unit 7 facilities check the [calendar](#); To book CMA facilities, contact Paul Guyett ([guyettp@tcd.ie](mailto:guyettp@tcd.ie)).

#### LAB ETIQUETTE

A reminder that labs are shared spaces and they should be left in a clean and proper state. Please be respectful of all working spaces and leave them better than you found them.

## Volcanic activity discovered from China's mission to the Moon



The basaltic samples retrieved from China's Chang'e-5 mission are the first lunar samples taken since the 1970s. A new paper published in the journal *Science* reveals that the samples are approximately 2 billion years old ( $1963 \pm 57$  Ma, Che et al., 2021). This is the youngest example of volcanic activity on the moon; previous lunar samples have been dated from around 3.12 to 4.2 billion years old.

The samples were retrieved from the Oceanus Procellarum (Sea of Storms) region, from 1-3 December 2020, while the Chang'e-5 lander/ascender was on the lunar surface. The team analysed two basaltic fragments which contained minerals such as olivine, plagioclase and chemically zoned clinopyroxene. The Oceanus Procellarum region is rich in potassium, thorium and uranium, which allowed the team to determine the U-Th-Pb ages of the lunar basalts.

These findings can help further consolidate the history of the wider Solar System. Through the process of crater counting (matching crater numbers to ages), the ages of craters on other planets, e.g. Mars, can be inferred.

"The Moon is the only planetary body where impact crater ages have been calibrated with radiometric dating, so the lunar chronology is used to infer the ages of other planetary surfaces throughout the Solar System" (Che et al., 2021).

You can read the full article [here](#).

To access the *Science* publication, click [here](#).

Photo credit: Chinese National Space Agency's (CNSA) Lunar Exploration and Space Engineering Center, [Nature](#) (above); NASA via [Nature](#) (right)

### LUNAR LANDINGS

China's Chang'e-5 mission is the first to collect lunar material since the Soviet and US missions in the 1960s and 1970s. It will touch down in the northern part of Oceanus Procellarum, a vast lava plain.

● US mission ● Soviet mission

