



## NEWSLETTER



### **WELCOME TO OUR FIRST CENTRE FOR CLIMATE REPAIR NEWSLETTER!**

This is our first (of many) newsletters we hope to issue every two months in order for us to showcase what is happening within CCR. Originally intended as just an internal newsletter, we thought how great it would be if we could also keep our friends of the Centre updated too!

This first newsletter is a small snapshot of what has happened in 2024 so far, and so may not include all the incredible work our team have been involved with but we hope to change this! As you will see, *In the Press*, the Centre has been receiving a lot of media attention and have many more features due out soon.

Please do ensure you keep an eye on what is coming up and if there is something we have missed, let us know too. Details on how you can do this is provided on the final page.

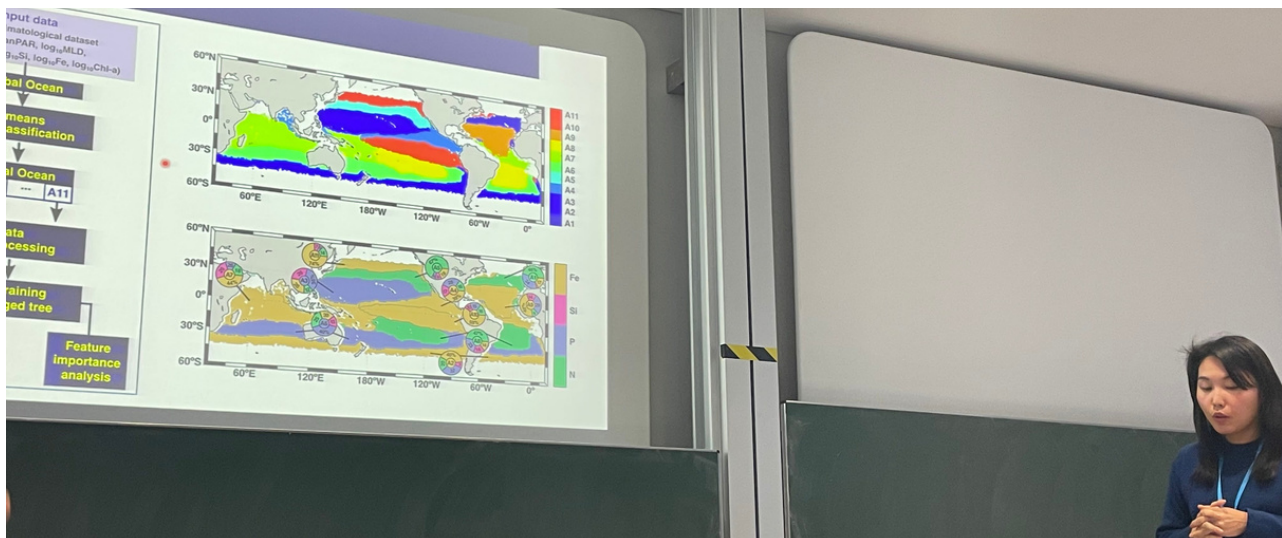
We can't wait to share with you the things lined up this year.

### **CORE TEAM CHANGES**

There have been some changes afoot with the Centre's core team with the addition of Dr Alice Cicirello, Associate Professor in Applied Mechanics. She has recently joined the CCR team and will be focusing on Machine-Learning within the Centre so we look forward to what she has in store!

We also have our new Programme Coordinator, Natalie Selwood, join us from 2nd January who was previously based in the Engineering department (IfM).

You can read more about ALL members of our Team [HERE](#).



## POSTDOC, JOO-EUN YOON, LEADS LUNCHTIME SEMINAR

Dr Joo-Eun Yoon, worked for CCR on the Marine Biomass Regeneration project based in DAMTP and gave a lunchtime seminar there on the 22nd January.

Her talk, entitled 'A machine learning approach for identifying the sensitivity of chlorophyll-a to nutrient concentration in the global ocean' was well attended and was an opportunity for Joo-Eun to show her latest research before she sadly left the Centre this month to take up a new post at the Korea Polar Research Institute.

Although she will be missed, we wish Joo-Eun the very best in her new post!



## JACOB HEADS NORTH

One of our Engineering PhD students, Jacob Pantling, was invited by [Real Ice](#) to accompany them on a trip to Cambridge Bay. Not to be confused with anything associated with the River Cam, Cambridge Bay is located in Nunavut, in the Canadian High Arctic.

Along with [Arctic Reflections](#), the aim was to restore Arctic Sea Ice through a process of ice thickening by pumping sea water on top of the ice. Working in temperatures below -20 degrees, Jacob got to experience first hand the incredible work that is being undertaken and engage with the local community.

A diary of his research trip can be found on his LinkedIn page [HERE](#). However, he will also be providing a short presentation at our first ECR Lunchtime meeting up (details on the [Coming Up](#) page). So do come along and hear from Jacob the surprising results they obtained.

# "SOLAR RADIATION MODIFICATION IN THE UNITED STATES: A DISCUSSION"

JANUARY 24, 12.30 PM(EST)/ 18.30 PM(CET)



**LLOYD WHITMAN**  
Senior Director of the  
GeoTech Center at  
the Atlantic Council



**YASHASVI RAJ**  
Climate Repair PhD  
Student at the  
University of  
Cambridge; WAFF  
youth delegate



**FRANCES BEINECKE**  
President Emerita,  
Natural Resources  
Defense Council and  
commissioner of the  
Climate Oversight  
Commission



**SHUCHI TALATI**  
Executive Director of  
the Alliance for Just  
Deliberation on Solar  
Geoengineering



**EDWARD PARSON**  
Dan and Rae Emmett  
Professor of Environmental  
Law at UCLA



REDUCING THE RISKS OF A WARMING WORLD  
OVERSHOOTCOMMISSION.ORG

## PHD STUDENT, YASHASVI, INVITED ON PANEL

In January, Yashasvi Raj - who works on Marine Cloud Brightening within CCR - was invited to speak on a 'Solar Radiation Modification in the United States' panel.

Speaking on his research to help refreeze the arctic, Yashas was joined by other panelists to discuss Solar Radiation Management (SRM) techniques and their ability to reduce the risk of an increasingly likely climate overshoot. The replay can be watched [HERE](#).



## DEPUTY DIRECTOR, HUGH, TALKS ABOUT COP28 TAKEAWAYS

On the 11th January, Hugh was invited to speak at the Healthy Planet Action Coalition (HPAC) General Meeting about his key takeaways from COP28. Speaking alongside Viktor Jaakkola from Operaatio Arktis, Hugh recanted his experience of COP28 as well as his personal views on the strides he feels the youth are seriously embracing on geoengineering.

"People were talking about geoengineering like never before and people were listening" Hugh stated and thought the organisation of youth events was extraordinary. On whether he believes COP28 was successful, Hugh acknowledged that there was a lot of negativity associated with it but young people being the voice was a positive and their messages will only get stronger.

You can also read Hugh's reflections on COP28 on the Trinity College website [HERE](#).





## CCR POSTDOC HELPS AUSTRALIAN TRIALS

PostDoc, Dr Dante McGrath, is currently in Australia helping Southern Cross University with their Marine Cloud Brightening trials over the Great Barrier Reef.

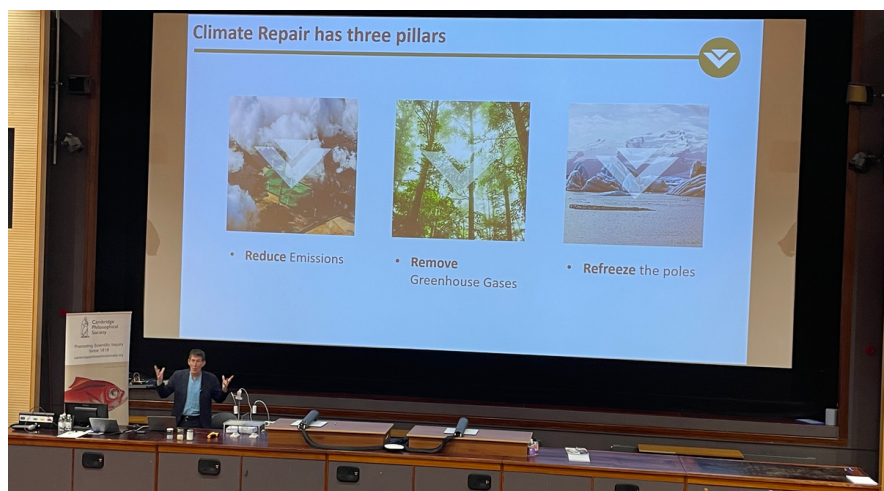
Watch this space for an update on his research when he returns!



## CENTRE DIRECTOR GETS PHILOSOPHICAL ABOUT CLIMATE REPAIR

On Monday 12th February, Centre Director, Dr Shaun Fitzgerald, was invited by the Cambridge University Philosophical Society (CUPS) to talk about going beyond emissions reduction - climate repair.

During his talk, Shaun talked about the ineffectiveness of current global policies and why climate intervention is essential. To a packed lecture theatre, he was able to successfully convey the urgent need for research in areas of ocean iron fertilization, ice thickening and the 'goldilocks zone' of droplet size in Marine Cloud Brightening. The reception was extremely positive, which would have been unheard of a few years ago on the subject of geoengineering, thereby highlighting a growing acceptance that emission reduction and removal is no longer enough.



# IN THE PRESS

It has been a busy couple of months for the Centre in the press and dare I say, there is more to come! Here is what has been published/aired so far:

## THE TIMES

This article can be found online [HERE](#). You do need a Times subscription however please email Natalie if you wish to obtain a PDF of the article.



## DUTCH TV

Although mostly in Dutch, the parts on the Centre are still fascinating! The replay can be found [HERE](#)



### Intervening in the climate

Ep. 19-Wed 20 Dec - 31m

Scientists, including Shaun Fitzgerald of Cambridge University's Centre for Climate Repair, are looking for possibilities for climate engineering, for example with simulated volcanic eruptions, concrete as a CO2 sponge and whiter clouds. But not everyone is happy with these sci-fi-like solutions.

## NATURE

This article can be found online [HERE](#).

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NEWS | 17 January 2024

## Could giant underwater curtains slow ice-sheet melting?

The curtains would separate polar ice sheets from warm ocean waters – but like other geoengineering proposals, the idea divides scientists.

By Xiaoying You



The Thwaites glacier acts as a plug to stop the West Antarctic ice sheet from more rapidly sliding into the ocean. Credit: Cover Images via ZUMA

With ice in polar regions disappearing at record rates, a group of researchers has proposed a drastic idea in the hope of slowing the melting: erecting giant underwater 'curtains' near glaciers to protect them from warm water. The idea has been met with scepticism and serious consideration alike, while scientists grapple with questions of whether pursuing such a radical proposal would help the world to address climate change.

## BBC RADIO SCOTLAND

Professor Hugh Hunt spoke with BBC Radio Scotland about our Sea Curtains research. Listen to his interview [HERE](#) from time: 45:50



# IN THE PRESS (CONTINUED)

\*ResearchProfessional News

UK Europe USA Australia & NZ Africa World Opinion Funding Insight Highlighted Funding Opp

< Go back **PROFESSOR** 12 JAN 2024

## Aria plan reignites geoengineering controversy

By Rachel Magee

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Opponents of climate-modifying research call programme director's plan 'dangerous and ill-informed'

Critics have poured scorn on plans to channel millions in public money through the government's new flagship R&D funder to research on controlling the climate. Their warnings clash with proponents who say the work is a moral duty in the face of a warming planet.

In December the government's £800 million Advanced Research and Invention Agency released plans detailing potential research on manipulating climate and weather that might be used in the event of "abrupt changes to the Earth's climate".

## HAKAI MAGAZINE

Featuring Joo-Eun's research, the article can be read online [HERE](#).

### Iron Fertilization Isn't Going to Save Us

The controversial geoengineering technique can defer, at best, a few years' worth of emissions. And that's ignoring the potential side effects.

by Jack McGovan

January 12, 2024 | 1,000 words, about 5 minutes

[f](#) [t](#) [in](#) [m](#)

Last year, global carbon emissions from burning fossil fuels reached an all-time high. As the world heats up, many influential bodies—such as the United Nations Intergovernmental Panel on Climate Change, the governments of China and the United States, and especially fossil fuel companies—are calling for the development of carbon removal technologies. These techniques pull carbon dioxide, a potent greenhouse gas, out of the air or water and lock it away in an inaccessible form. At a big enough scale, these technologies can theoretically counterbalance emissions and help cool things down—or at least slow the rate of warming.

That's why, in November 2021, Edwina Tanner, a marine scientist at the Australia-based biotechnology company Ocean Nourishment Corporation, dumped a mix of nutrients from a boat into the water in Botany Bay, on the south side of Sydney, Australia. As waves rocked

## RESEARCH PROFESSIONAL NEWS

This article can be found online [HERE](#).

Shaun Fitzgerald's remarks on geoengineering are featured in this piece.

## VARSITY

This article can be found online [HERE](#).

An interview was done with Dr Shaun Fitzgerald and the Centre's Engagement Manager, Dr Antoinette Nestor, regarding their thoughts on COP28.



### Behind the scenes at the Cambridge centre researching new solutions for climate change

Sophie Denny speaks to Dr Shaun Fitzgerald and Dr Antoinette Nestor about their work at the Centre for Climate Repair, COP28 and the future of the climate crisis

by Sophie Denny

Friday February 2 2024 12:00am

[f](#) [t](#) [in](#) [m](#)



Fitzgerald (right) and Nestor (left) at COP28  
DR ANTOINETTE NESTOR WITH PERMISSION FOR VARSITY

On 13 December 2023, COP28 closed with a landmark agreement said to mark the "beginning of the end" for fossil fuels. Dr Shaun Fitzgerald, director of the Centre for Climate Repair in Cambridge, acknowledges that this is "a momentous change", but reminds me that "it's taken nigh on 30 years to state the blindingly obvious". Both he and Dr Antoinette Nestor, the centre's engagement manager, are keen to note the

# COMING UP...

## CAMBRIDGE CLIMATE LECTURE SERIES

The Cambridge Climate Lecture Series is back for the Lent Term!

The first talk is by Professor Aoife Foley in the Winstanley Lecture Theatre at Trinity College and we hope to see some of you there!

There will be light refreshments provided afterwards and we are in for an interesting line up this term.

To book onto an event, don't forget to register [HERE](#).

## GORDON RESEARCH CONFERENCE

Shaun Fitzgerald, Hugh Hunt and PhD students, Edmund Reardon and Yashasvi Raj will be heading to Lucca, Italy on the 18th February to attend this year's Climate Engineering Gordon Research Conference.

The title of this year's Conference is *Addressing Key Process and Impacts of Earth System Response to Solar Radiation Modification* and will be presenting posters on their respective research. We look forward to hearing all about it!

## OCEAN SCIENCES CONFERENCE

Professor John Taylor and Dr Ali Mashayek together with Postdoc Si Chen and PhD student, Elisavet Baltas will be attending the flagship conference for ocean sciences in February.

Held this year in New Orleans over 6 days, the conference aims to 'foster and encourage discussions'. We look forward to hearing all about it upon their return!

**CAMBRIDGE CLIMATE LECTURE SERIES 2024**

**No 1.5 °C without Climate Intervention?**

**Schedule**

*Prof. Aoife Foley, Chair in Net Zero Infrastructure, Univ of Manchester*  
**Decarbonisation and the great awakening**  
Thursday 15 Feb  
7:00 - 8:30pm  
Winstanley Lecture Hall, Trinity College

*Harriet Lamb, CEO WRAP, Co-Founder Fair Trade Foundation*  
**The textile industry and preloved clothing**  
Thursday 7 March  
7:00-8:30pm  
Winstanley Lecture Hall, Trinity College

*Oliver Morton, Science writer and Editor & Prof. Myles Allen, Univ of Oxford*  
**Agreeing to disagree**  
Thursday 14 March  
7:00-8:30pm  
Old Combination Room (OCR), Trinity College

*Operaatio Artiks, Youth Organisation Finland*  
**CCLS Final Lecture: No 1.5 C without Intervention?**  
Friday 15 March  
7:30-9:00pm  
Bobbage Lecture Theatre, New Museums Site, CB2 3RS

UNIVERSITY OF CAMBRIDGE Centre for Climate Repair CAMBRIDGE ZERO TRINITY COLLEGE

## CAMBRIDGE ZERO COMMUNITY DAY

On Saturday 17th February, Cambridge Zero has a Community Day and CCR will be making an appearance!

Come along and visit our stand where Engineering students will be demonstrating the 'Cloud in a Bottle' experiment!

For more information on the Community Day and to view the incredible line-up, visit the website [HERE](#).

## COMING UP (CONTINUED)

### RAF AND TU DELFT COMING TO CAMBRIDGE

At the beginning of March, Refreeze the Arctic Foundation (RAF) and academics from Delft University of Technology will be arriving in Cambridge for a 2-day plenary session on projects funded by RAF that look to help refreeze the Arctic.

The last meeting was held at TU Delft in September 2023 and we look forward to giving them a warm welcome to Cambridge and an update on our ongoing projects!



### YOU MAY BE INTERESTED IN...

Starting from the 6th February, *Project Save the World* will be producing one hour long videos on YouTube mainly discussing proposed interventions to help reduce the temperature in the polar regions. Thirty-five forums are scheduled and you can watch these shows on their YouTube channel once they have aired [HERE](#).

The line-up includes discussions around Marine Cloud Brightening, Iron Salt Aerosol, Cirrus Cloud Thinning, Seaweed Farming and Whale poop.

You can also watch them on their website [HERE](#) and keep the discussion going in the comments section.



# AND FINALLY!



## THE CENTRE FOR CLIMATE REPAIR IS ON INSTAGRAM!

Do follow us @ClimateRepairCambridge and encourage others to do so too!

This will be a platform where we can showcase your research so we will be approaching you over the next few months for a snapshot on what you do and what you have been up to!

## FOLLOW US ON SOCIAL MEDIA!

Not only on Instagram but also on Twitter and LinkedIn.

This is the best place to get events and research updates in real-time and if you tag the Centre for Climate Repair, we may repost it on our platforms!

Click on the icons to go our pages.



## LET US KNOW WHAT YOU WANT TO SEE IN OUR NEWSLETTERS!

If you would like to see more (or less) of something in our future newsletters, then please do get in touch! You can send our Centre Coordinator, Natalie Selwood, an email at [nas56@cam.ac.uk](mailto:nas56@cam.ac.uk) and she will ensure that all requests are considered.

**THE NEXT ISSUE WILL BE OUT IN EARLY APRIL SO STAY TUNED!**



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CAMBRIDGE



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Climate Repair