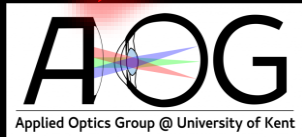
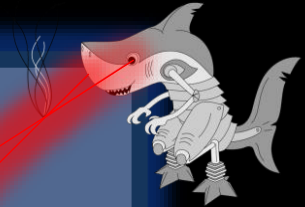


The Applied Optics Group's

a ^{normal} calendar

~~January~~ ²² - ~~December~~ ²³
February *January*



University of
Kent

OPTICA Advancing Optics and
Student chapter Photonics Worldwide | Formerly
OSA

FEBRUARY 2022

SUN	MON	TUE	WED	THU	FRI	SAT
		1 <i>Chinese New Year</i>	2	3	4	5
6 <i>Queen's Jubilee</i>	7	8	9	10	11	12
13	14 <i>Valentine's Day</i>	15	16	17	18	19
20	21	22	23	24	25	26
27	28					



Dr. Manuel Jorge Marques



Ernstiano Ronaldo SIUU

As one of the lab's post-docs, my day is pretty varied (and at times totally *unpredictable*) - I can be found working on the systems supporting my current research projects (OCT* imaging applied to *Biosciences, Ophthalmology, Forensic Sciences, Agriculture...*), but equally supporting the AOG's wonderful researchers, in particularly those just getting started in their research journeys.



*See May page

MARCH 2022

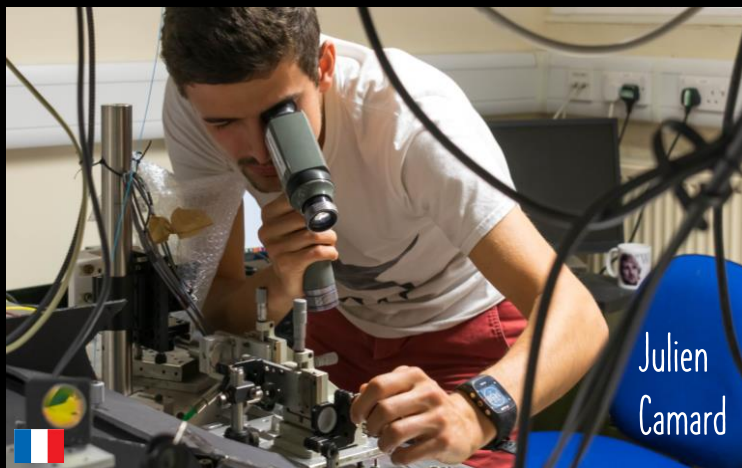
SUN	MON	TUE	WED	THU	FRI	SAT
		1 Wales national day!	2 Ash Wednesday	3	4	5
6	7	8 Shrove Tuesday Int'l Women's Day	9	10	11	12
13	14	15	16	17	18 Holi	19
20	21	22	23 St Patrick	24	25 Greek national day!	26
27 Mother's Day	28	29 Pakistan national day!	30	31		



My goal is to provide clinicians the means to detect cancer at an early stage, where successful treatment rates increase significantly. Which is why I am developing a multi-modal (combining Opto-Acoustic Microscopy with **Optical Coherence Tomography***), non-invasive imaging system with advanced diagnostic capabilities.



*See May page



Julien
Camard

I am working to help biologists selecting animal/human **embryos** that have the best chances of developing! To do so, I am developing an OCT* imaging system to see them in 3 dimensions. I also look for tools to probe their stiffness, because it can tell a lot about the embryos' odds of survival! My research could **help future parents** to have a child with **improved *in vitro* fertilisation (IVF)**!

APRIL 2022

SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
3 1 st day Ramadan	4	5	6	7 National Beer day	8	9
10	11	12	13	14	15 Good Friday	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30



*See May page

MAY 2022

SUN	MON	TUE	WED	THU	FRI	SAT
1	2 Eid al-Fitr	3	4 Start Wars Day	5	6	7
8	9	10	11	12	13 Apple Pie Day	14
15	16 International Day of Light	17	18	19	20	21
22	23	24	25	26	27	28 Hamburger Day
29	30	31				

*Optical Coherence Tomography (OCT) is an imaging technique that uses low-coherence light to capture micrometer-resolution, two- and three-dimensional images from within optical scattering media



The International Day of Light is celebrated on the 16th May each year, the anniversary of the first successful operation of the **laser** in 1960 by physicist and engineer, Theodore Maiman. This day is a **call to strengthen scientific cooperation and harness its potential to foster peace and sustainable development.**

OPTICA Advancing Optics and Photonics Worldwide | **OSA**

Optica is a professional association of individuals and companies with an interest in optics and photonics. It publishes journals, and organizes conferences and exhibitions. In 2019 it had about 22,000 members in more than 100 countries, including 300 companies. They provide support for the creation of student chapters such as ours at the University of Kent in Canterbury. We organize outreach activities, conferences and more... Take a look into our chapter by scanning the QR code!



JUNE 2022

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Denmark national day!

Sweden national day!

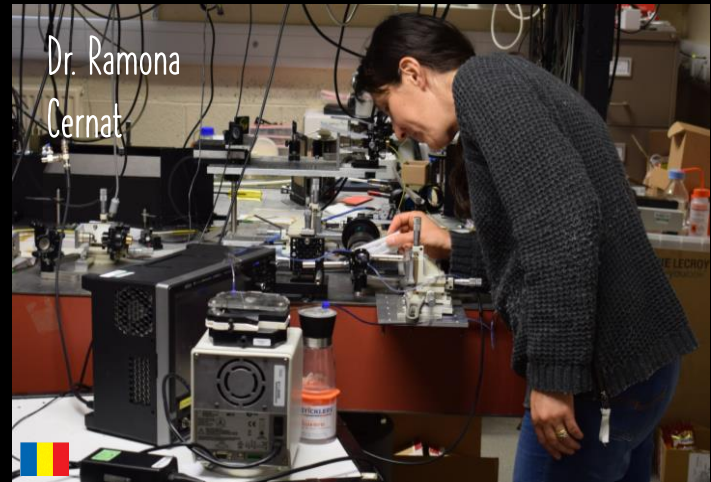
Portuguese national day!

Queen's Plat. Jubilee Bank Holiday

Murcia's day

Father's day

British and Russian national days!



Like my colleagues, I am working with OCT, to which I add a range of functional applications like *Doppler flow* (to detect the speed of moving particles) and *Gabor fusion* (to get a sharp image across a long distance). I am in charge of the **NETLAS**, a European network on innovative laser development! Several students of our research group belong to this network!



Sacha Grelet



In my research, I want to allow ophthalmologists to take very fast scans of the retina – leaving you no time to blink! For that, we generate very short pulses of light which **changes color** in time.

These colors are in the infra-red, so they are invisible! But your phone can see them, like on this picture, where it shines in **pink**.



JULY 2022

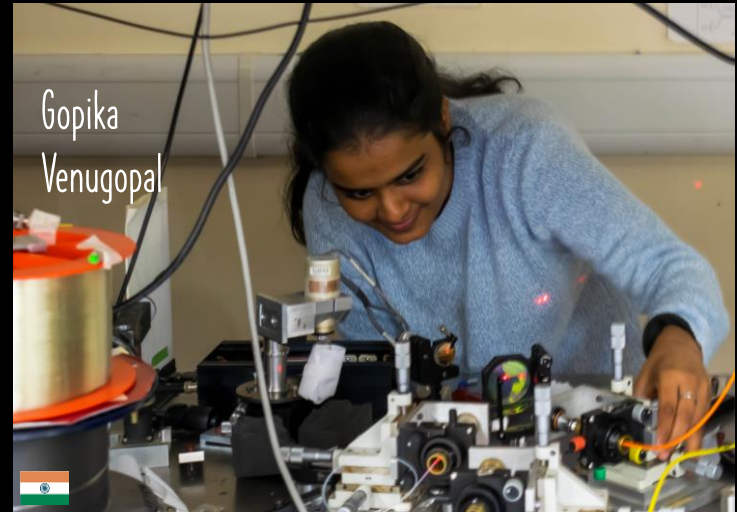
SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
3	4 <small>National Mojito day</small>	5	6	7	8	9
10	11	12	13	14	15	16
17 <small>Britanny's only sunny day</small>	18	19 <small>National Daiquiri day</small>	20	21	22	23
24	25	26	27	28	29	30
31	French national day!					



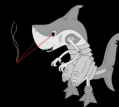
AUGUST 2022

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
7	8	9 National BBQ day	10	11 National Fajita day	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31 National Eat Outside Day			

India national day!

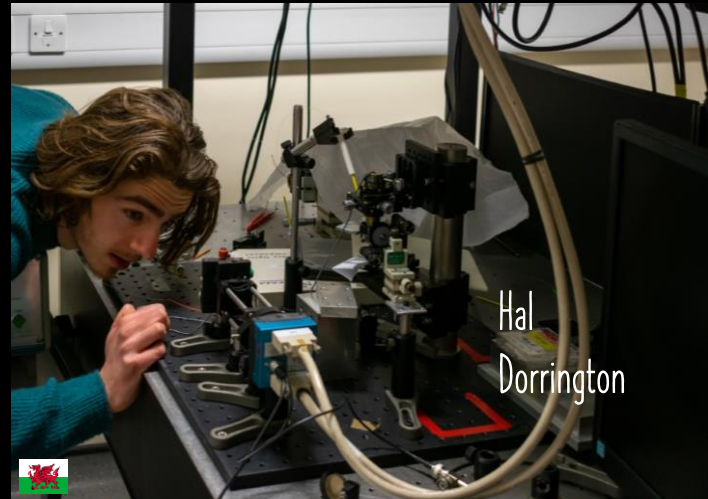


My research is on developing a **swept source** (a source that changes color very fast) for **Optical coherence tomography** using diffraction based tuning methods with **mechanical** scanners. Currently working on swept sources using **galvanometric scanners** at 850 nm (near infrared).



SEPTEMBER 2022

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
		National Beer Lover's day	7	8	9	10
4	5	6				
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	
Roch Hachana	Navratri			National Hot Mulled Cider day		



In my research I work with **Optical Fibre Bundles**. These are thin and flexible light pipes which can be used to obtain images and videos from confined spaces. I am working to develop an OCT system, with the intention of finding applications in **Endoscopy, Embryology, and Botany**.





Alejandro Martínez Jiménez

Hey! It's me! I'm developing super-cool **lasers** for different purposes, with the special feature of sweeping from one **colour** to another **colour**!



OCTOBER 2022

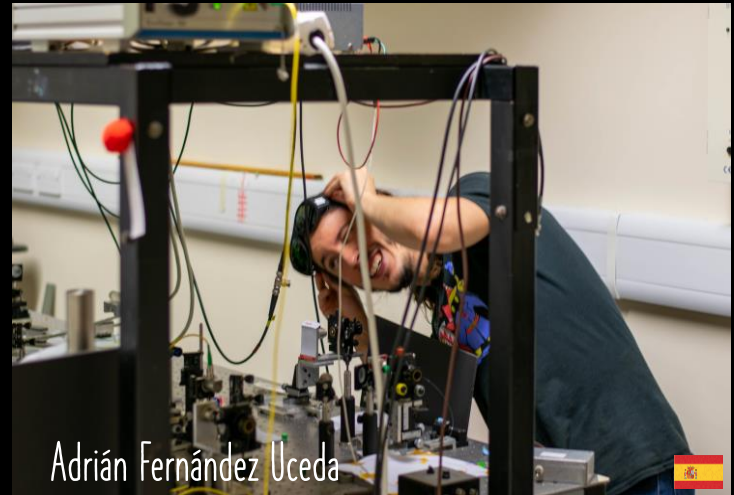
SUN	MON	TUE	WED	THU	FRI	SAT
						1
2	3	4 Yom Kippur	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24 Diwali	25	26	27	28	29
30	31 Halloween					

Spanish national day!

Czech national day!

NOVEMBER 2022

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7 National Spicy Guacamole	8	9	10	11	12
13	14 ^{day}	15	16	17	18	19
20	21	22	23 National Espresso day	24	25	26
27	28	29	30	Thanksgiving day		



Adrián Fernández Uceda

Most of our research is meant to be applied to a living organism, but if we want to study them *in-vivo*, sometimes they won't stay put! My research focuses on compensating that movement. It requires tons of alignment, which can be hard to see, so if you raise the *power*, don't forget the goggles!





DECEMBER 2022

SUN	MON	TUE	WED	THU	FRI	SAT
			National Rumanian day!	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
Christmas	Boxing Day					

Merry Christmas!



← Xmas tree in the lab!



The Applied Optics
Group

The **Applied Optics Group (AOG)** develops advanced optical systems for imaging and sensing, with applications in medicine, science and industry. One of our core strengths is in **Optical coherence tomography** (an imaging technique to see inside objects in 3 dimensions) for **medical imaging**, alongside research interests in adaptive optics, microscopy, endoscopy, photoacoustics and spectroscopy.

JANUARY 2023

Happy New Year!

SUN	MON	TUE	WED	THU	FRI	SAT
1 New Year's Day	2	3	4	5	6 Epiphany	7
8	9	10	11	12	13	14
15	16 Ditch New Year's Resolutions Day	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	35
36	...					

