

NETLAS NEWSLETTER 6-2022

SECONDMENTS



PhD13: Alejandro Martinez Jimenez

Host: University of Kent, Applied Optics Group (AOG)

Secondment is planned to start 20th June 2022 at NKT Photonics for six months

PhD Project: NPR laser followed by time stretch

Alejandro said: "During my time in Kent among all the OCT stuff, I've been developing a mode locked laser based on nonlinear polarization rotation (NPR), this laser performed well achieving up to 50 nm, which is limited by the gain medium, in this case, erbium doped fibre. It has been proved that photonic crystal fibre could exceed this limitation and reach 100 nm and even more if the conditions are given. For that reason, my plan in NKT is to use the photonic crystal fibres that they manufacture with their experience to build a hybrid NPR laser at 1060 nm."

Good Luck Alejandro!!





AOG University of Kent – Company visit: Knight Optical

Between the activities of the OPTICA Student Chapter at the University of Kent, the company visits are listed. Hence, is always a great opportunity to make a visit to another closest company based in Kent, <u>Knight Optical</u>.

Knight Optical, the global supplier of metrology-tested, premium-quality optical components, recently sponsored the University of Kent celebratory event that applicated Professor Adrian Podoleanu's honourable career in the invigorating scientific field of optics.

On 14th June 2022 NETLAS and AOG PhD Students and final year undergraduates from NATS Division of Natural Sciences, School of Physical Sciences, organized themselves and drove in two cars to the company located in Harrietsham near Maidstone.



In the photo, from left to right: Dr Manuel Marques, Taylor Sanderson, Lucy Abbott, Gopika Venugopal, Adrian Fernandez, Wisdom Igiogbe, Managing Director Colin Overton, Rene Riha, and Rasmus Eilkær Hanse



The visit started with a short tour of the sales building where we also got to see both former and current products. We heard about what the product flow might be, and how the company can customise products to specific customers.

As the quality assurance, and availability of spec sheets are important to the clients of Knight Optical a look at the facilities where these measurements are performed was obvious. The students appreciated the advanced instruments, calm work environment, and clean setups used for this purpose. The instruments included advanced microscopes, spectrophotometers, and a FTIR-spectrometer.

The tour concluded with refreshments and a chat with managing director Colin Overton about everything from applications of optics to fresh-water fishing in France. Colin Overton very kindly assured us that if there is specialised equipment that we need, he is only an email or a phone call away.

For more information about Knight Optical, their services (including their in-house state-of-the-art Metrology Laboratory and dedicated QA department) and wide-ranging portfolio of stock and custom-made optical components, please visit www.knightoptical.com

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AOG and NETLAS PhD Students participation to celebrate Professor Adrian Podoleanu's distinguished career:

<u>Professor Adrian Podoleanu Career Celebration conference</u>
Canterbury 26-27 May 2022

We are delighted to announce that we had the great opportunity to join in person an event which took place in Canterbury, UK, on 26th and 27 May, to celebrate Prof Adrian Podoleanu's career achievements to date. All PhD students attending the event prepared and displayed poster presentations and their titles can be found in Newsletter 23 (page 21) Newsletter-23.pdf (aogkent.uk).



In the photo from left to right: Marie Klufts (NETLAS), Rasmus Eilkær Hanse (visiting from Technical University of Denmark (DTU)), Esteban Andres Proano Grijalva (NETLAS), Irene Rodriguez Lamoso (NETLAS), Philipp Tatar-Mathes (NETLAS), Prof. Adrian Podoleanu, Julien Camard (AOG), Alejandro Martinez Jimenez (NETLAS), Sacha Grelet (NETLAS), and Adrian Fernandez Uceda (AOG).

Photo taken by AOG PhD Student Julien Camard



NETLAS PhD Student Sacha Grelet: "I had a lot of fun during these days! The conference was (very) compact but interesting. It was also moving to see all these people from different backgrounds having such a strong relationship with Adrian. Of course, a lot of the pleasure was to see the other NETLAS students and all the AOG members © Thank you very much for inviting us. Looking forward to coming back".

NETLAS PhD Student Philipp Tatar-Mathes: "I agree with Sacha! Being still new to OCT, I learned a lot during these days, and it was fun to see many Netlas students again, as well as the presenters with different background that Adrian was collaborating with during the years: puts the potential of OCT into a nice perspective. Thank you very much for the invitation! Looking forward to coming back in October for my secondment".

NETLAS PhD Student Marie Klufts: "I had such a good time in Canterbury, I am looking forward to come back! And the conference was great, very impressive work, and nice dinner. See you very soon for my secondment in Kent this October".

Rasmus Eilkær Hanse, visiting from Technical University of Denmark (DTU): "The seminar was one of the highpoints in my 4 months stay in the AOG group. It was inspiring to see all these presentations about the state of the art within OCT. It was a wholesome experience seeing how Adrian has impacted so many people and groups around the world with his research and flair for collaboration".

NETLAS PhD Student Irene Rodriguez Lamoso: "The celebration of Adrian's career was incredible. Meeting and sharing with all these professionals that are collaborating or had been collaborating with Adrian was impressive and very motivational for an ESR like me. Was very interesting being able of knowing about their work and all the things that Adrian did (and still does) along his career. This event made me think how for example all the participants of NETLAS will relate with each other in some years, if the results if half of what I saw in this event I would be more than happy".



AOG PhD Student Julien Camard: "I had the chance to participate in the organisation of the CC22 conference, which turned out to be a very enriching experience! I started my contribution by designing the conference logo. We wanted something simple enough, conveying both the location of the event and the science behind it. I decided to a silhouette of the Canterbury cathedral and a doodled version of a retinal OCT image, which contributed to making Adrian's work known internationally. During the event, I had the roles of photographer and community manager for the AOG's Twitter page. In my pictures, I tried to give a sense of the vivid scientific networking that I was witnessing. After the second day of talks, I made sure to capture the emotional speeches during the conference dinner. Overall, I was amazed by the breadth of connections made by Adrian, and by his impact on the global photonics community. I made a little speech myself to thank the rest of the organising team. I shared how Adrian reminded me of those inventors you see in Disney movies, without the craziness; or perhaps with a different kind, one at the service of innovative ideas, some sort of "what if?" from which great science stems".

NETLAS PhD Student Esteban Andres Proano Grijalva: "It was great to know how influential Adrian's career has been throughout all of these years from the perspective of many speakers from different parts of the world. The talks were also good to learn more about OCT applications and besides the science it was a nice chance to spend time with other NETLAS students".

NETLAS PhD Student Gopika Venugopal: "It was indeed a great conference, was really interesting to listen to all those wonderful presentations. It was heart-warming to hear about the connections and collaboration Adrian had established over the years".

NETLAS PhD Student Rene Riha: "For the first time, I could see Adrian Podoleanu's research range and number of people he has cooperated with. Posters made by AOG members mainly helped the visitors to have an insight in the current projects inside the group. There were presented many results from the work of professor's past and current collaborators. I hope that Prof. Podoleanu enjoyed the event and wish him many more years in the scientific research".



AOG PhD Student Adrian Fernandez Uceda: "It was an impressive experience, to be able to see the reach of someone's research and teaching through their life and how it impacted so many areas and experts around the globe was really inspiring. The event also allowed a wonderful environment for networking and for sharing our research thanks to bring renowned researchers closer to our projects. Overall, a wonderful experience that I believe positively impacted all student's research careers, both in research and in personal aspects".

NETLAS PhD Student Alejandro Martinez Jimenez: "I think this kind of events are the main essence of NETLAS, because of the pandemic we couldn't have much networking with our colleagues. However, this event was great to know a little bit more on what our peers are doing, we are in a more advanced stage than the previous Winter school. We were able to see the differences between our projects, find advantage of different swept source modalities, and discuss about research".

AOG PhD Student Hal Dorrington: "The conference has been a great insight into Adrian's career. As one of his PhD students, it was inspirational to witness and hear from many successful and well-established researches who were once his students. The field of OCT has become very advanced, and it is great to see some of its latest developments. The atmosphere was friendly throughout and culminated with some touching remarks at the closing meal, reflecting sentiments towards Adrian that were shared by all guests".





Photos taken by AOG PhD Student <u>Julien Camard</u>



Before the poster's session, the organizers arranged a tour of the AOG's labs



Photos taken by AOG PhD Student <u>Julien Camard</u>

Thanks to the organizing committee: Dr Adrian Bradu, Dr Ramona Cernat, Dr, George Dobre, Dr. Michael Hughes, Dr. Manuel Marques, AOG PhD Student Julien Camard and NETLAS PhD Student Alejandro Martinez Jimenez.



A big Thank You for all the sponsors which contributed to the event: Thorlabs, Superlum Diodes, ICARE, NKT Photonics, Knight Optical, University of Kent - Division of Natural Sciences, Santec, AFW Technologies, and Sir John and Lady Mason Academic Trust.



Sponsors

















Sir John and Lady Mason Academic Trust



Many thanks for the sponsors who were able to join our event in person: Dr David Heard, Nyra Ashraf (and to Marketing Manager Abigail Lee abigaillee@santec.com (EMEA Region) for organizing the sponsorship) from Santec and to Colin Overton CEO from Knight Optical.







Colin Overton CEO Knight Optical and Prof Podoleanu

OCT wouldn't be what it is without optical sources from <u>@SuperlumDiodes!</u> Many thanks Superlum for sponsoring our event, thank you Natalie Tuchapsky and <u>Dr. Vladimir Shidlovski</u> (online) for your contribution.



Superlum's representative: Natalie Tuchapsky and <u>Dr. Vladimir Shidlovski</u> (online)



Present your research at SPIE Photonics West 2023 28th January – 2nd February 2023



Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XXVII (BO300)

Important dates

Abstracts due	20 July 2022
Registration	October 2022
Authors notified and program posts online	10 October 2022
Submission system opens for manuscripts and poster PDFs*	28 November 2022
Post-deadline abstracts due: Submit via conference listings	12 December 2022
Poster PDFs due for spie.org preview and publication	4 January 2023
Manuscripts due	11 January 2023
Advance upload deadline for oral presentation slides**	26 January 2023

^{*}Contact author or speaker must register prior to uploading

SPECIAL ABSTRACT REQUIREMENTS: PEER REVIEW

Submissions to this conference are due no later than 3 August 2022 (later than the main BIOS due date) and must include the following:

- 100-word text abstract (for online program)
- 250-word text abstract (for technical review)
- 3-page PDF summary (for committee review). Expanded content is not necessary and will not be considered; please limit your summary to 3 pages

View conference call for papers here:

Browse the 2023 Photonics West call for papers (spie.org)

^{**}After this date slides must be uploaded onsite at Speaker Check-in



NETLAS Associated Partners Prof. Pearse Keane and Prof. Ted Garway-Heath in the Ophthalmologist Magazine Power List 2022

Each year The Ophthalmologist Magazine publishes their Power List of the top 100 influential Ophthalmologists from around the world and **Pearse Keane**, Professor of Artificial Medical Intelligence at UCL Institute of Ophthalmology, and a consultant ophthalmologist at Moorfields Eye Hospital has come 10 in the Power List 2022 for his work investigating Artificial Medical Intelligence powered diagnosis of eye diseases. Also included in the list is **Professor Ted Garway-Heath**, our NETLAS Associated partner.



Professor Pearse Keane



Professor Ted Garway-Heath

Links

- The Ophthalmologist's Power List
- Prof Pearse Keane
- Professor Ted Garway-Heath
- Read the news on the Moorfields Eye Hospital's website



PUBLICATIONS

<u>Predicting Visual Fields From Optical Coherence</u> <u>Tomography via an Ensemble of Deep Representation</u> <u>Learners</u>

Georgios Lazaridis , Giovanni Montesano, Saman Sadeghi Afgeh, Jibran Mohamed-Noriega, Sebastien Ourselin, Marco Lorenzi, **David F Garway-Heath**

American Journal of Ophthalmology, Volume 238, June 2022, Pages 52-65

doi: 10.1016/j.ajo.2021.12.020

Abstract

Purpose: To develop and validate a deep learning method of predicting visual function from spectral domain optical coherence tomography (SD-OCT)-derived retinal nerve fiber layer thickness (RNFLT) measurements and corresponding SD-OCT images.

Design: Development and evaluation of diagnostic technology.

Methods: Two deep learning ensemble models to predict pointwise VF sensitivity from SD-OCT images (model 1: RNFLT profile only; model 2: RNFLT profile plus SD-OCT image) and 2 reference models were developed. All models were tested in an independent test-retest data set comprising 2181 SD-OCT/VF pairs; the median of ~10 VFs per eye was taken as the best available estimate (BAE) of the true VF. The performance of single VFs predicting the BAE VF was also evaluated. Read More

Conclusions

Our method outperformed standard statistical and deep learning approaches. Predictions of BAEs from <u>OCT</u> images approached the accuracy of single real VF estimates of the BAE.



Two octaves spanning photoacoustic microscopy

Gianni Nteroli, Manoj K. Dasa, Giulia Messam , Stella Koutsikou, Magalie Bondu, Peter M. Moselund, Christos Markos, Ole Bang,

Adrian Podoleanu & Adrian Bradu

Scientific Reports 12, 10590 (2022).

https://doi.org/10.1038/s41598-022-14869-5

In this study, for the frst time, a Photoacoustic Microscopy instrument driven by a single optical source operating over a wide spectral range (475–2400 nm), covering slightly more than two octaves is demonstrated. Xenopus laevis tadpoles were imaged in vivo using the whole spectral range of 2000 nm of a supercontinuum optical source, and a novel technique of mapping absorbers is also demonstrated, based on the supposition that only one chromophore contributes to the photoacoustic signal of each individual voxel in the 3D photoacoustic image. By using a narrow spectral window (of 25 nm bandwidth) within the broad spectrum of the supercontinuum source at a time, in vivo hyperspectral Photoacoustic images of tadpoles are obtained. Read More

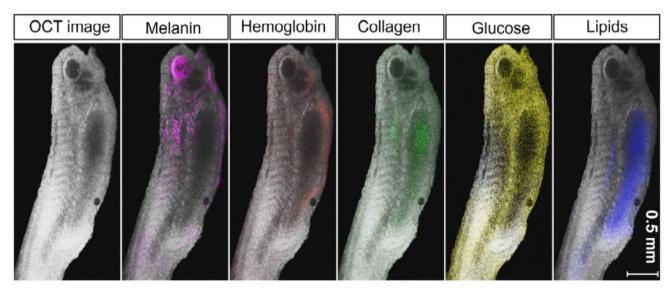


Figure 6. Qualitative illustrations of the superposition of the spatial mapping distribution of melanin (in pink), hemoglobin (magenta), collagen (green), glucose (yellow) and lipids (blue) within a tadpole obtained using the technique proposed, over a structural OCT image of the same tadpole. Similar in vivo images were obtained when imaging other four tadpoles. The image on the left shows the bare OCT image of the tadpole over which the maps of the chromophores were overlaid.



3D microscope could mean the end of biopsies:

A new microscope could eliminate the need for biopsies on tissue before important decisions are made

A team from Columbia Engineering has designed a system that could replace traditional biopsies and histology with real-time images within the human body. MediSCAPE is a high-speed 3D microscope capable of capturing image data of tissue structures that could direct surgeons to navigate tumors and their boundaries without the need to remove tissues and wait for pathology results, according to a recent paper published in Nature Biomedical Engineering.

Various medical treatments, including cancer surgeries and screenings require doctors to perform a biopsy, which involves taking out tiny fragments of tissue so that they may be examined under a microscope. "The way that biopsy samples are processed hasn't changed in 100 years, they are cut out, fixed, embedded, sliced, stained with dyes, positioned on a glass slide, and viewed by a pathologist using a simple microscope. This is why it can take days to hear news back about your diagnosis after a biopsy," said Elizabeth Hillman, professor of biomedical engineering and radiology at Columbia University.

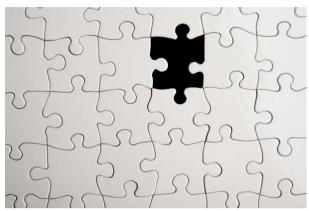
Leaving critical tissue in place

Hillman's team hoped for an innovative replacement, wondering whether they could get images of tissue without having to remove it. "Such a technology could give a doctor real-time feedback about what type of tissue they are looking at without the long wait," she said. "This instant answer would let them make informed decisions about how best to cut out a tumor and ensure there is none left behind."

Even though some surgical microscopes already exist, they are limited to a single 2D plane, making it tough for clinicians to efficiently inspect greater areas of tissue and analyze their findings. As a result, these microscopes are not appropriate for all patients because of the time and effort required to inject the patient with fluorescent dye. Read More



5 tips for dealing with non-significant results



Credit: Image Source/Getty Images

When researchers fail to find a statistically significant result, it's often treated as exactly that – a failure. Non-significant results are <u>difficult to publish</u> in scientific journals and, as a result, researchers often choose not to submit them for publication.

This means that the evidence published in scientific journals is biased towards studies that find effects. A <u>study published in Science</u> by a team from Stanford University who investigated 221 survey-based experiments funded by the National Science Foundation found that nearly two-thirds of the social science experiments that produced null results were filed away, never to be published.

By comparison, 96% of the studies with statistically strong results <u>were</u> written up.

"These biases imperil the robustness of scientific evidence," says David Mehler, a psychologist at the <u>University of Münster</u> in <u>Germany</u>. "But they also harm early career researchers in particular who depend on building up a track record."

Mehler is the co-author of <u>a recent article</u> published in the *Journal of European Psychology Students* about appreciating the significance of non-significant findings. So, what can researchers do to avoid unpublishable results? <u>Read More</u>



Five-letter words for research: 'trial' and 'error'

(source: https://www.labnews.co.uk)

At the start of the year, I found - like so many others - that my social media feed had been infected by a strange bug where all the posts were titled something like "219 3/6" and were made up of strange grey, yellow, and green squares. I am now aware that this was my first sighting of the global **word game craze Wordle.** Released towards the latter end of 2021, Wordle took the internet by storm in early 2022 when the creator added the share feature that quickly suffused my social feeds with the small, coloured squares neatly laid out in grids of five across.

For those of you that haven't heard of this craze; *Wordle* is an online word game where each day you have to guess a mystery five-letter word. You get six guesses and each time you guess you are told if any of the letters are correct (yellow letters are right but in the wrong place, green letters are right and in the right place) so that you can narrow down your next guess.



Each guess gets you that bit closer to the right answer and helps you slowly come to the only answer it can be. How brilliant would it be if research worked in the same way!

You get your results back from your experimental first run. All black except a few points in one corner which are yellow. You repeat your experiment, this time the points in the corner have moved along and are now green with some more yellows either side. You repeat the experiment a third time and now everything is black again because you actually used the wrong concentration, but you get the idea. I mean to some extent this does already happen. Read More



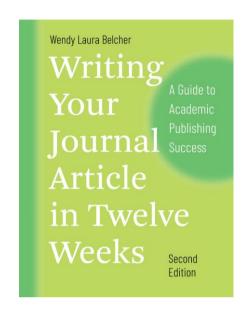
Author: Dr Matthew Partridge is a researcher, cartoonist and writer who runs the outreach blog errantscience.com



BOOK of interest for NETLAS PhD Students

Writing Your Journal Article in Twelve Weeks

Second Edition
By Wendy Laura Belcher



ITS GOALS The primary goals of this workbook are to aid you in revising a classroom essay, conference paper, BA or MA thesis, dissertation chapter, talk, or unpublished article and sending it to the editor of a suitable academic journal. That is, the goals are active and pragmatic. The workbook provides the instruction, tasks, structure, and deadlines needed to complete an effective revision. It will help you develop the habits of productivity that lead to confidence, the kind of confidence it takes to send a journal article out into the world. By aiding you in taking your paper from classroom or conference quality to journal article quality, the workbook also helps you overcome any anxiety about academic publishing. For those who don't have a draft to revise, I provide instructions in the chapter "Week 0: Writing Your Article from Scratch." Read More

Order the book here



OPTICS & PHOTONICS NEWS



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OPTICA PUBLISHING GROUP OSA

IMAGE OF THE WEEK 6^{TH} JUNE 2022



Discovering
Hidden
Colors in
Nature

The fluorescence of olive oil—as well as the phenomenon of total internal reflection—is visible under illumination with a green laser.

—Luis Alberto Sánchez, Universitat de València, Valencia, Spain

Optics & Photonics News - Submit an image (optica-opn.org)



NKT Photonics: New Koheras lasers for quantum applications

Performance like never before. New wavelengths. Higher power. Lower noise. Narrow linewidth. Industrial reliability.



The Koheras HARMONIK lasers give you access to a wide range of new wavelengths, up to 10 W of power, low noise, and a linewidth below 200 Hz.

New wavelengths for your quantum research

You can now get Koheras HARMONIK lasers at the following wavelengths as a standard:

- 780 nm, 840 nm, and 1064 nm for rubidium
- 317 nm, 813 nm, and 1064 nm for strontium
- 532 nm and 1762 nm for barium
- 399 nm, 556 nm, 638 nm, 770 nm, and 1064 nm for vtterbium

Was your wavelength not on the list? Get in touch for other wavelengths.



NKT Photonics:

One measurement measures emission of sub-nano to millisecond timescales – SuperK, the only light source you need

If you work with luminescent materials in lighting applications or fluorescence materials for bioimaging maybe this is for you.



Tom Vosch's Nanospectroscopy group at the University of Copenhagen has presented a method that lets you characterize luminescent materials over very large ranges of time – from subnanoseconds to milliseconds or longer (a factor of 1 million or more difference in time scales).

The group demonstrated the method for a DNA-stabilized silver nanocluster (DNA-AgNC) that displays dual emission.

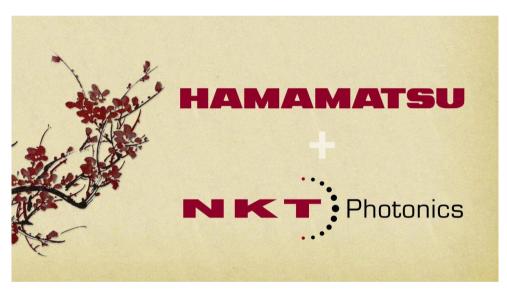
Read the <u>summary</u> or get all the details in the <u>publication</u>.

READ ON



NKT Photonics joins Laser Application business of Hamamatsu Photonics Group

Recently, NKT Photonics has conducted a strategic review to identify the best way to further grow and strengthen the company with the view to increase market reach and to further develop our industry leading solutions. Today, 24th June 2022, we are very happy to announce that we will become part of Hamamatsu Photonics, one of the oldest and most respected photonics companies in the world.



Founded in Japan in 1953, Hamamatsu Photonics today has more than 5300 employees worldwide and an annual revenue close to 1.2 billion EUR. Hamamatsu Photonics specialize in optical sensors, electric light sources, and other optical devices and instruments for scientific, technical, and medical use.

"At NKT Photonics, we are all excited and honoured to become part of Hamamatsu Photonics, one of the most respected global companies in our industry. We share common goals and a vision of providing the best solutions to our customers and innovators. Together and with our complementary technology platforms, we will be stronger than ever," says Basil Garabet, CEO NKT Photonics. Read More



Webinars

We recommend our NETLAS PhD students to attend these upcoming webinars (part of the free Thorlabs webinar series). Thorlabs' Digital Webinars are covering a variety of topics, each with a dedicated live Q&A session, and have a common goal of providing educational, engaging, and valuable content. Their live webinars have concluded for 2021. Check back for next year's schedule and browse content from prior ones on the Recorded Webinars tab.



Thorlabs Previously Recorded Webinars

Thorlabs' Digital Webinar series began in mid-2020. Each webinar and Q&A session is recorded and added to the archive on Thorlab's web page.



AOG - summer picnic day

There is a saying "Have a picnic to remember the summer!"

Summer is the best time for a relaxed outdoor meal, so AOG members come up with the idea for a picnic within the University area. After inviting their collaborators from School of Biosciences, and undergraduate students (currently doing summer projects within AOG and School of Biosciences), they picked up a date and prepared a list with what delicious food everyone is going to prepare. In the afternoon of 13th June 2022, they found a suitable area in the forest not far from the AOG's building. Everyone brought specific food from their own countries, soft drinks and cakes. After exploring different delicacies, some students had a bit of fun and played card games before returning to their labs.



There's no time to waste—summer will be over before you know it. So, grab your blanket and your basket and get picnicking!



<u>Little Amal returns to Kent</u> <u>University</u>

Kent welcomed back Little Amal – the 3.5 metre-tall living artwork of a young Syrian refugee child – to the Canterbury Campus for a special event that included the opportunity to dance a <u>Dabke</u> with her.



Little Amal returns to the Canterbury Campus

School students were invited to the campus for a special workshop where they learnt the dance, before Amal arrived and joined them and members of the public. Local refugee networks and charities were also at the event, giving visitors the chance to find out more about their work and get involved.

Little Amal set out from Turkey's Syrian border in July 2021 before passing through Greece, Italy, France, Switzerland, Germany and Belgium on a walk that aimed to focus attention on the urgent needs of millions of young refugees worldwide and the need to change the narrative around human movement. Kent is the only UK University to have hosted a stage of The Walk. Since July 2021 Little Amal has travelled over 8,000km in support of refugees. Read More



In memoriam: Prof. Gabriel Popescu

(adapted from https://ece.illinois.edu, and https://spie.org/

Prof. Gabriel Popescu passed away 16 June 2022, during a visit to his hometown of Prundu, Romania. Prof. Popescu was the William L. Everitt Distinguished Professor in the department of electrical and computer engineering at the University of Illinois at Urbana-Champaign (UIUC). He was also the director of his Quantitative Light Imaging Laboratory at the Beckman Institute for Advanced Science and Technology, as well as the founder and president of Phi Optics, an optical microscopy company supporting and commercializing the work of bio-pharma and life-sciences academic researchers.



At SPIE Photonics West 2014, SPIE Past President (2015) Toyohiko Yatagai, left, presents Gabriel Popescu his SPIE Fellow certificate. Read More

Highly active in the SPIE community, Prof. Popescu served on the Journal of Biomedical Optics (JBO) editorial board; he was a founder of the SPIE Quantitative Phase Imaging conference at Photonics West's BiOS, which began in 2015, helping to grow it into one of the largest conferences in BiOS; and had acted as advisor to the UIUC SPIE Student Chapter since his arrival there in 2007. In addition, for SPIE, he taught courses entitled Introduction to Quantitative Phase Imaging and Fourier Optics. This year, he was recognized with the SPIE Dennis Gabor Award in Diffractive Optics.

An internationally recognized researcher and thought leader in optics and **biophotonics**, prof. Popescu authored the textbook <u>Quantitative Phase Imaging of Cells and Tissues</u> in 2011, published 185 journal publications, delivered 230 conference presentations, was issued 32 patents, and gave 220 invited talks. He also co-founded and chaired a conference at SPIE Photonics West that attracts more than 100 papers per year and has grown to be one of the largest at the event. Prof. Popescu served as an associate editor of *Optics Express* and *Biomedical Optics Express* and an editorial board member for the *Journal of Biomedical Optics* and *Scientific Reports*. He was also a reviewer at NIH and the National Science Foundation. <u>Read More</u>



Just two weeks before the terrible motorbike accident, on 27th May 2022, Prof. Popescu delivered a presentation at the conference organized for Prof. Adrian Podoleanu distinguished career celebration, with the title <u>"Standing on Adrian's shoulders: from OCT to QPI"</u>.



Session 9

Session chair: Dr Michael Hughes

- Progress on functional retinal imaging with OCT (keynote talk)
 Prof Robert Zawadzki, University of California, Davis
- Biophotonics of Embryonic Development Prof Irina Larina, Baylor College of Medicine
- Standing on Adrian's shoulders: from OCT to QPI
 Prof Gabriel Popescu, University of Illinois at Urbana-Champaign
- Laser technologies linking Tampere University and AOG.
 Prof Mircea Guina, Tampere University
- Optical coherence tomography reflections on common origins and paths crossed (keynote talk)
 Prof David Sampson, University of Surrey





Photos taken with Prof. Popescu during his presentation at the CC22 event

Prof. Podoleanu said: "Prof Gabriel Popescu, who spoke at the CC22 event, wrote a book on quantitative phase microscopy/measurements (QPM)s on cells and initiated one of the most popular conference at PW on QPMs. Optics lost an innovative contributor and the AOG, a potential collaborator. A few weeks ago we have been planning a joint conference on Biomedical Optics in Romania. Very sad. Rest in peace Gabi!"



NETWORK EVENTS

We invite all partners to communicate events and ideas to place in our newsletter

Please send any piece of news, on NETLAS activities or anything else happening that may be of interest to the NETLAS community, to Ramona Cernat: R.Cernat@kent.ac.uk and to Adrian Podoleanu: ap11@kent.ac.uk