



36th Newsletter of the ITN:

“NEXt Generation
of Tuneable LASers for optical
coherence tomography”

(NETLAS)

led by University of Kent



June 2023



UPCOMING NETWORK EVENTS



**Markus Pessa Summer School "New Frontiers in Optical Technologies", August 7-11, Tampere, Finland, in conjunction with the
NETLAS International Conference**

The International Summer School New Frontiers in Optical Technologies was established in 2001. The 11th edition organized this year marks a name change to “**Markus Pessa International Summer School New Frontiers in Optical Technologies**” – a tribute to the memory of the late [Prof. Markus Pessa](#), the founder of the Optoelectronics Research Centre in Tampere and the pioneer of optoelectronics and semiconductor laser technology in Finland.

Tutorial type of lectures covering laser technologies, imaging (including bio-imaging technology), quantum technology, photonic integration, transferable skills and Student Mentoring Activities.

NETLAS ESR presentation abstracts have been accepted and a programme will be published in due course. **Late registration is still possible following the links at:**

[Markus Pessa Summer School | Tampere Universities \(tuni.fi\)](#)



OCT innovators visiting Kent

On 20th June 2023, the Applied Optics Group at Kent hosted distinguished OCT inventors David Huang (OCT inventor and 1st author of the paper in Science that coined the term “OCT”) and Yali Jia (OCTA inventor), who delivered a joint talk broadcast by TEAMS to the NETLAS community.

Prof David Huang

Associate Director and Director of Research of Casey Eye Institute, and the Peterson Professor of Ophthalmology and Professor of Biomedical Engineering at the Oregon Health & Science University (OHSU)



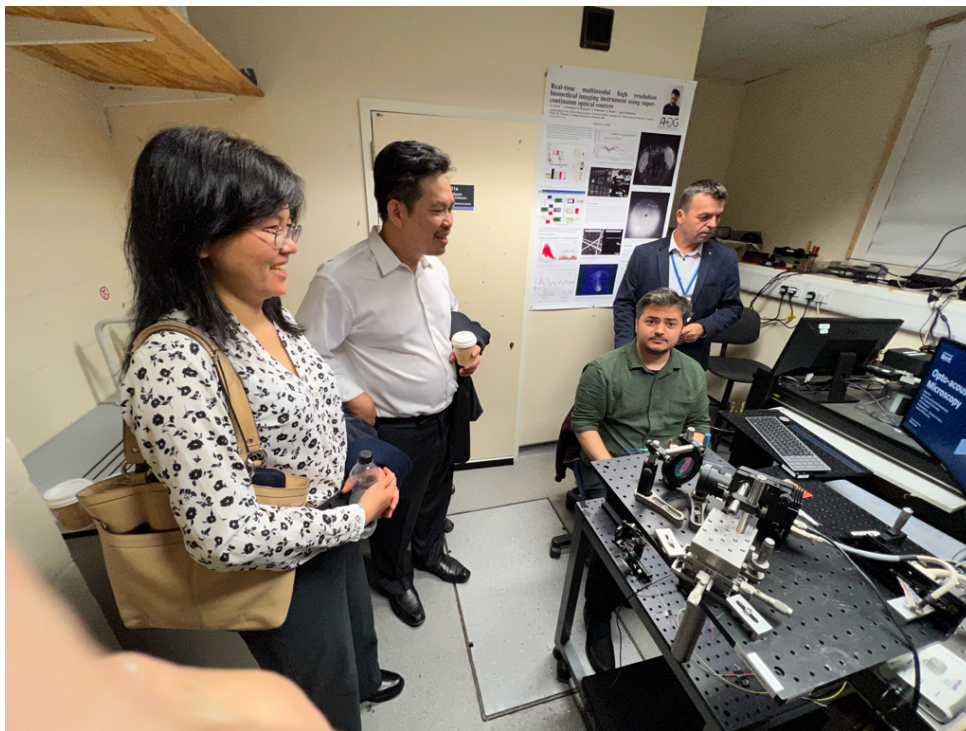
“History of OCT and OCT angiography” and “Improving resolution & contrast for clinical OCT”

Prof Yali Jia

Professor of Ophthalmology and Biomedical Engineering, Jennie P. Weeks Professor of Ophthalmology, and associate director of the Center for Ophthalmic Optics & Lasers at Oregon Health & Science University (OHSU) and co-founder of International Ocular Circulation Society.



“Retinal OCT angiography & oximetry: technology innovations and clinical applications”



Professors Huang and Jia visiting the Applied Optics Labs (shown here is the lab of Dr Adrian Bradu and Gianni Nteroli)



European Conference on Biomedical Optics
CLEO Europe
Laser World of Photonics Congress Munich
24-30 June 2023



Photo: Messe München
© Messe München



A good number of our NETLAS students attended and presented their research at the European Conference on Biomedical Optics and CLEO Europe, one of the major events in the conference calendar. Here are the titles of the research papers they presented:

Presenter	Title	Full author list
Muhammad Asim Bashir	CLEO Paper CL-8.3 FRI 1190 nm FDML laser: Challenges and Strategies	Muhammad Asim Bashir, Simon Lotz, Marie Klufts, Cristian Jirauschek, and Robert Huber
Sacha Grelet	CLEO Paper CH-1.3 MON 10 MHz swept-source for optical coherence tomography at 1050 nm	Sacha Grelet, Patrick Bowen Montague, and Adrian Podoleanu
Marie Klufts	CLEO Paper CL-8.3 FRI Dual Amplification 850 nm FDML Laser	Marie Klufts, Simon Lotz, Muhammad Asim Bashir, Tom Pfeiffer, Alexander Mlynek, Wolfgang Wieser, Alexander Chamorovskiy, Vladimir Shidlovski, Adrian Podoleanu, and Robert Huber
Alejandro Martinez-Jimenez	EBO Paper 12632-9 Dual ultrahigh speed swept-source and time domain optical coherence tomography system using a time stretch laser and a KTN deflector	Alejandro Martínez Jiménez, Univ. of Kent (United Kingdom); Sacha Grelet, Univ. of Kent (United Kingdom), NKT Photonics A/S (Denmark); Patrick Bowen Montague, NKT Photonics A/S (Denmark); Adrian Bradu, Adrian Podoleanu, Univ. of Kent (United Kingdom)



René Riha	Paper 12632-12 A fully akinetic FDML-like swept source for SS-OCT	René Riha, Adrian Podoleanu
Gopika Venugopal	Paper 12632-67 Development of a 850 nm swept source based on a resonant scanner spectral filter	Gopika Venugopal, George Dobre, Alexander Chamorovski, Andrey Anikeev, Adrian Podoleanu

Congratulations to all our students and we're proud of Gopika's success in Munich where she received the Best Student Poster Award at the European Conference of Biomedical Optics and had the opportunity to address the final session of EBO, talking about her research at Kent and in Linz, as part of NETLAS.





A few images from Munich, captured by our official AOG photographer Julien Camard





As part of Munich attendance, Adrian Podoleanu, member of CLEO committee of conference Imaging through scattering media, has chaired session CH-1, on Monday, June 26, 2023, 8:30-10:00, Room 14b ICM.

On 26 June, SPIE organised a meeting of SPIE Fellows with students. This was attended by the Kent team:





In Munich, the Kent team met Dr. Sophie Caujolle, PhD alumna from University of Kent, now working as Technology Scout at Heidelberg Engineering





Secondments

NETLAS PhD 15 Gopika Venugopal

Recruited by: University of Kent (UoK) UK

Secondment at RECENDT, Linz, Austria under the supervision of Dr Bettina Heise 9 June 2023 – 23 June 2023



Gopika's PhD Project is "Swept source development at 670 nm and 850 nm"

Other meetings and conferences

NETLAS PhD Student [Alejandro Martinez Jimenez](#) gave a talk at the [Biophotonics for EyE Research Summer school](#), University Residence of Jaca (Aragonese Pyrenees, Spain) of the University of Zaragoza from **June 1 to 4, 2023**. Please find the full programme of the school at [BER2023 \(unizar.es\)](#)

Alejandro delivered his talk entitled "*Dual Ultrahigh Speed Swept-source & Time Domain Optical Coherence Tomography system using a time-stretch laser and a KTN deflector*".



OPTICS & PHOTONICS NEWS



[Optics & Photonics News Magazine](#)
[June 2023 Issue](#)

OPTICS & PHOTONICS NEWS

Image of the Week

Congratulations to Marie Klufts and Alejandro Martinez Jimenez whose image of galvanometer scanners seen through a lens was awarded OPN's Image of the Week

Galvanometer Scanners for OCT - light from a swept source of 800 nm is reflected on galvanometer scanners to reach the phone camera.



—Alejandro Martinez Jimenez, University of Kent, Canterbury, Kent, UK; Applied Optics Group. Swept source from Marie Klufts



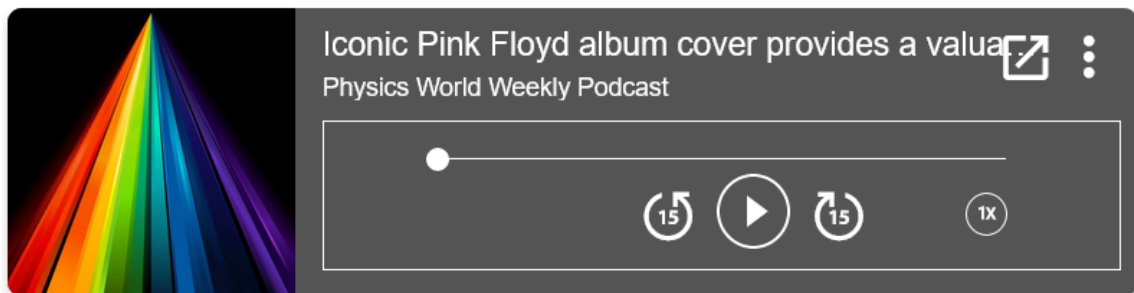
Education and outreach podcast

In this episode of the Physics World Weekly podcast, the physics teacher Tom Tierney explains how his students analysed the album cover and learned a lot about the physics of refraction and the optical properties of materials.

EDUCATION AND OUTREACH | PODCAST

Iconic Pink Floyd album cover provides a valuable lesson in optical physics

13 Jul 2023 Hamish Johnston



Listen to the podcast: [Iconic Pink Floyd album cover provides a valuable lesson in optical physics](#)

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 George Dobre: gd@kent.ac.uk and to Adrian Podoleanu: ap11@kent.ac.uk