



2nd Canterbury Conference on OCT

Emphasis on Broadband Optical Sources

6th - 8th September 2017

University of Kent, Canterbury, Kent, United Kingdom

Contents

List of Sessions	2
Conference Organisers.....	3
Sponsors.....	4
Conference Information.....	5
Full Programme.....	7
List of Posters.....	14

List of Sessions

Wednesday 6th September

- 08.30 - 09.00 Registration (*Rutherford Junior Common Room*)
- 09.00 - 09.10 Welcome and Opening (*Rutherford Lecture Theatre 1*)
- 09.10 - 10.20 **Session 1. OCT IN OPHTHALMOLOGY (I)**
- 10.20 - 10.50 NKT Coffee Break
- 10.50 - 12.20 **Session 2. OCT IN OPHTHALMOLOGY (II)**
- 12.20 - 13.50 Lunch
- 13.50 - 16.00 **Session 3. OCT ANGIOGRAPHY, MICROSCOPY AND ENDOSCOPY**
- 16.00 - 16.30 Superlum Coffee Break
- 16.30 - 17.40 **Session 4. NOISE IN SUPERCONTINUUM**
- 17.40 - 18.05 **Session 5. INDUSTRY FORUM (I)**
- 18.05 - 20.00 Drinks Reception (Sponsored by OSA Student Chapter)

Thursday 7th September

- 09.00 - 10.30 Visits in Groups to Photonics Centre
- 09.30 - 10.30 Student Social Event in Photonics Centre
- 10.30 - 11.00 Coffee Break
- 11.00 - 12.30 **Session 6. ADDRESSING THE BROADBAND CHALLENGE**
- 12.30 - 14.00 Lunch
- 14.00 - 16.00 **Session 7. MULTIMODAL APPROACHES**
- 16.00 - 16.30 Santec Coffee Break
- 16.30 - 17.40 **Session 8. NON-DESTRUCTIVE TESTING AND ART CONSERVATION**
- 17.40 - 18.20 **Session 9. OCT IN DENTISTRY**
- 19.00 Gala Dinner

Friday 8th September

- 09.00 - 11.00 **Session 10. CONDITIONING THE SIGNAL**
- 11.00 - 11.30 Thorlabs Coffee Break
- 11.30 - 12.40 **Session 11. MASTER SLAVE OCT**
- 12.40 - 14.00 Lunch
- 14.00 - 14.30 **Session 12. INDUSTRY FORUM (II)**
- 14.30 - 15.45 **Session 13. RANDOM LASERS AND SWEEP SOURCES**
- 15.45 - 16.00 Best Oral Presentation Prize and Closing Remarks

Conference Organisers

Chairs

Adrian Podoleanu	University of Kent, Canterbury, UK
Ole Bang	Technical University of Denmark, Copenhagen, Denmark

International review committee

Adrian Podoleanu	University of Kent, Canterbury, UK
Ole Bang	Technical University of Denmark, Denmark
John Clowes	Fianium, UK
John Dudley	University of Franche-Comte, France
Grigory Gelikonov	Institute of Applied Physics RAS, Nizhny Novgorod, Russia
Rainer Leitgeb	Medical University Vienna, Austria
Michael Leitner	Thorlabs, Germany
Xingde Li	Johns Hopkins University, Baltimore, MD, USA
David D. Sampson	The University of Western Australia, Australia
Manabu Sato	Yamagata University, Japan
Kevin Tsia	The University of Hong Kong, Hong Kong
Frederique Vanholsbeeck	The University of Auckland, New Zealand
Maciej Wojtkowski	Polish Academy of Sciences, Warsaw, Poland
Daniel Woods	Michelson Diagnostic, UK
Hao F. Zhang	Northwestern University, USA

Local executive committee

Adrian Bradu	University of Kent, Canterbury, UK
George Dobre	University of Kent, Canterbury, UK
Michael Hughes	University of Kent, Canterbury, UK

Local support committee

Magalie Bondu	NKT Denmark and University of Kent, Canterbury, UK
Caroline Catherine Chin	NKT Denmark and University of Kent, Canterbury, UK
Sophie Caujolle	NKT Denmark and University of Kent, Canterbury, UK
Thomas Feuchter	NKT, Denmark
Felix T. Fleischhauer	NKT Denmark and University of Kent, Canterbury, UK
Peter Lee	University of Kent, Canterbury, UK
Lasse Leick	NKT, Denmark
Peter Moselund	NKT, Denmark
Michael Maria	NKT Denmark and University of Kent, Canterbury, UK
Manuel Jorge Marques	University of Kent, Canterbury, UK
Ranjan Rajendram	Moorfields Eye Hospital
John B Schofield	Maidstone Hospital, UK
Michael Everson	University of Kent, Canterbury, UK

Sponsors



Conference Information

General Information

The conference will run from 9 am on Wednesday 6th September to 4pm on Friday 8th September, with all events held on the University of Kent Canterbury Campus.

In the morning of Thursday 7th September, visits to the Applied Optics Group labs in the Photonics Centre will be scheduled between 9.00 and 10.30 am, arrangements to be explained on Wednesday.

Venues and Locations

Campus Map: <https://www.kent.ac.uk/locations/downloads/canterbury-campus-guide-2017.pdf>

Travel to Campus: <https://www.kent.ac.uk/locations/canterbury/directions.html>

City Map: <http://mediafiles.thedms.co.uk/Publication/TK-Cant/cms/pdf/Canterbury-City-Map.pdf>

All conference sessions, posters, exhibition, lunch and coffee breaks will be held in Rutherford College (*K4 on campus map*). Please follow the signs from the building main entrance.

The **Gala Dinner** will be held in Dolche Vita, Keynes College (*N6 on campus map*).

For **Photonics Centre** tours meet outside the main entrance of Ingram Building (*H4 on campus map*).

Groceries are available from 'Essentials' on the central campus (*J14 on campus map*).

A **Pharmacy** is available on Giles Lane (*N2 on campus map*).

ATMs are located outside Essentials and the Banking Hall (*J14 and J8 on campus map*).

Instructions for Presenters

Oral: A PC running Windows 10 and Powerpoint 2016, supporting common video codecs, will be available. Alternatively, you can present from your own laptop via a VGA connection. Please bring any other adaptors required. A laser pointer will be provided. The display screen aspect ratio is 4:3.

Please transfer your presentation to the PC or test your laptop connection prior to the session.

Presenters are requested to allow 3 – 5 minutes for questions within their allotted time.

Poster: Please attach your poster to the boards provided by 9.00 AM on 6th September using the tacks provided. Posters will remain up for the entire conference, but presenters are requested to stand with their posters during the Wednesday PM coffee breaks.

Emergency Contact Numbers

Police, Fire, Ambulance (Emergency)	999
Campus Security (Emergency)	01227 823333
Campus Security (Non-Emergency)	01227 823300

Useful Links

Local Tourist Information:	http://www.canterbury.co.uk/tourist-information/
Train Times and Tickets:	http://www.nationalrail.co.uk
Campus to City Bus Service:	https://www.stagecoachbus.com/promos-and-offers/south-east/university-of-kent-unibus

Taxi Numbers

Local Taxis

Cabline6	01227 555 555
Wilkinson	01227 450 450
Longleys	01227 710 777
Cabco	01227 455 455

Full Programme

Wednesday 6th September

08.30 - 09.00 Registration

Delegate bag and badge collection in Rutherford College Junior Common Room.

09.00 - 09.10 Welcome and Opening

Including a welcome from the University of Kent Deputy Vice-Chancellor, Professor Philippe De Wilde.

09.10 - 10.20 Session 1. OCT IN OPHTHALMOLOGY (I)

Chair: Adrian Podoleanu

09.10 - 9.40 **INVITED. New clinical opportunities for retinal vascular imaging - adaptive optics to OCT angiography**

Richard Rosen, Toco Chui, Rishard Weitz, Alfredo Dubra, Joseph Carroll, Patricia Garcia, Alex Pinhas, Nicole Scripsema, Shelley Mo, Steven Agemy, Brian Krawitz. NY Eye & Ear Infirmary of Mount Sinai Ican School of Medicine (United States)

09.40 - 10.00 **Subretinal hyper-reflective material seen on optical coherence tomography as a quantitative biomarker for disease monitoring in age related macular degeneration**

H. Lee, Ophthalmology, East Kent Hospitals University NHS Foundation Trust (United Kingdom); B. Ong, M. Katta, C. Yvon, L. Lu, R. Zakri, East Kent Hospitals Univ. NHS Foundation Trust (United Kingdom); N. Patel, East Kent Hospitals Univ. NHS Foundation Trust (United Kingdom) and Kings College School of Medicine (United Kingdom)

10.00 - 10.20 **Supercontinuum ultra-high resolution line-field OCT with experimental spectrograph comparison, experimental comparison with current clinical OCT system for the imaging of a human cornea and application to pharmaceutical pellets**

S. J. Lawman, V. Romano, P. W. Madden, S. Mason, B. M. Williams, Y. Zheng, Y. Shen, Univ. of Liverpool (United Kingdom)

10.20 - 10.50 NKT Coffee Break

10.50 - 12.20 Session 2. OCT IN OPHTHALMOLOGY (II)

Chair: Richard Rosen

10.50 - 11.20 **INVITED. OCT-guided micro-precise robots for retinal therapeutics delivery**

Christos Bergeles, University College London (United Kingdom)

- 11.20 - 11.35 GALAHAD H2020 Project Glaucoma: advanced, label-free high resolution automated OCT diagnostics**
P. Moselund, P. Bowen, NKT Photonics A/S (Denmark); B. Napier, Vivid Components Ltd. (Germany); I. B. Gonzalo, DTU Fotonik (Denmark); O. Bang, NKT Photonics A/S (Denmark)
- 11.35 - 11.50 Use of a super continuum white light in evaluating the spectral sensitivity of the pupil light reflex**
C. Chin, Univ of Kent (United Kingdom); L. Leick, NKT Photonics A/S (Denmark); A. Podoleanu, G. S. Lall, Univ of Kent (United Kingdom)
- 11.50 - 12.05 Superpixel guided active contour segmentation of retinal layers in OCT volumes**
F. Bai, M. Marques, A. G. Podoleanu, S. J. Gibson, Univ. of Kent (United Kingdom)
- 12.05 - 12.20 OCT-based angiography in real time with hand-held probe**
G. V. Gelikonov, BioMedTech LLC (Russian Federation); A. A. Moiseev, S. Y. Ksenofontov, D. A. Terpelov, V. M. Gelikonov, Institute of Applied Physics (Russian Federation)

12.20 - 13.50 Lunch

13.50 - 16.15 Session 3. OCT ANGIOGRAPHY, MICROSCOPY AND ENDOSCOPY

Chair: Haida Liang

- 13.50 - 14.15 INVITED. OCT imaging to characterize disturbed vascularization in malignant and inflammatory epithelial diseases**
Stephen Matcher, University of Sheffield (United Kingdom)
- 14.15 - 14.30 Assessing embryo development using swept source optical coherence tomography.**
S. M. Caujolle, Univ. of Kent (United Kingdom) and NKT Photonics A/S (Denmark); R. Cernat, G. Silvestri, M. M. Marques, A. Bradu, Univ. of Kent (United Kingdom); T. Feuchter, NKT Photonics A/S (Denmark); G. Robinson, D. Griffin, A. G. Podoleanu, Univ. of Kent (United Kingdom)
- 14.30 - 14.55 INVITED. Endoscopic and multi-modal OCT for clinical use**
Grigory Gelikonov, Institute of Applied Physics and BioMedTech LLC (Russian Federation)
- 14.55 - 15.20 INVITED. Microscopic OCT for small animal imaging**
Gereon Hüttmann, Michael Münter, Mario Pieper, Luca Sebastian Schiefer, Martin Ahrens, Peter König, Hinnerk Schulz-Hildebrandt, Medical Laser Center Lübeck, Institute of Biomedical Optics; Thorlabs GmbH; Institute of Anatomy
- 15.20 - 15.35 Investigating optically cleared Alzheimer's disease mouse brain tissue with micrometer resolution visible light spectral domain optical coherence microscopy**
A. Lichtenegger, M. Muck, J. Gesperger, P. Eugui, D. J. Harper, M. Augustin, C. K. Hitzenberger, A. Wöhrer, B. Baumann, Medizinische Univ. Wien (Austria)

15:35 - 16:00 **INVITED. Tissue imaging using full field optical coherence microscopy with short multimode fiber probe**
M. Sato, K. Eto, T. Goto, R. Kurotani, H. Abe, Yamagata Univ. (Japan); I. Nishidate, Tokyo Univ. of Agriculture and Technology (Japan)

16.00 - 16.30 **Superlum Coffee Break and Poster Session**

16.30 - 17.40 **Session 4. NOISE IN SUPERCONTINUUM**

Chair: Patrick Bowen

16.30 - 16.55 **INVITED. Low-noise supercontinuum sources based on all-normal dispersion fibers - exploring their prospects and limitations**
Alexander Heidt, Institute of Applied Physics, University of Bern

16.55 - 17.10 **Analysis of supercontinuum noise for shot-noise limited detection in ultra-high resolution optical coherence tomography at 1300 nm**
M. Maria, Univ. of Kent (United Kingdom); T. Feuchter, P. Moselund, L. Leick, NKT Photonics A/S (Denmark); O. Bang, DTU Fotonik (Denmark); A. G. Podoleanu, Univ. of Kent (United Kingdom)

17:10 - 17:25 **Noise study of all-normal dispersion supercontinuum sources for potential application in optical coherence tomography**
I. Bravo Gonzalo, R. Dybbro Engelsholm, O. Bang, DTU Fotonik (Denmark)

17:25 - 17:40 **Polarization extinction and noise characterization of a commercial supercontinuum source**
Catherine Chin, Univ. of Kent (United Kingdom) and NKT (Denmark); Thomas Feuchter, Peter Moselund, NKT (Denmark)

17.40 - 18.05 **Session 5. INDUSTRY FORUM (I)**

Chair: Adrian Podoleanu

17.40 - 18.05 **INVITED. Applications of turn-key OCT systems outside biomedicine**
Michael Leitner, Thorlabs (Germany)

18.05 - 20.00 **Drinks Reception (Sponsored by OSA Student Chapter)**

In the coffee/exhibition area, Rutherford College.

Thursday 7th September

09.00 - 10.30 **Visits in groups to Photonics Centre**

Tours will be organised in three groups of up to 15 people. The first group will be student-only, to allow attendance at the student social event at 09.30.

09.30 - 10.30 Student social event in Photonics Centre

In the Photonics Centre Meeting Room. Organised by the OSA Student Chapter of the University of Kent. Students only.

10.30 - 11.00 Coffee Break

11.00 - 12.30 Session 6. ADDRESSING THE BROADBAND CHALLENGE

Chair: David Sampson

11:00 - 11:30 INVITED. Dispersion mapping in samples using broadband spectral domain OCT
Frederique Vanholsbeek, Univ. of Auckland (New Zealand).

11.30 - 11.50 Resolution dependence on phase extraction by the Hilbert transform in phase calibrated and dispersion compensated ultrahigh resolution spectrometer based OCT
N. M. Israelsen, Technical Univ. of Denmark (Denmark); M. Maria, Univ. of Kent (United Kingdom); T. Feuchter, NKT Photonics A/S (Denmark); A. Bradu, A. G. Podoleanu, Univ. of Kent (United Kingdom); O. Bang, Technical Univ. of Denmark (Denmark)

11:50 - 12:10 Achieving sub-micron resolution in the mouse retina with white light polarisation sensitive optical coherence tomography
D. J. Harper, M. Augustin, A. Lichtenegger, P. Eugui, C. K. Hitzenberger, B. Baumann, Medizinische Univ. Wien (Austria)

12:10 - 12:30 Theoretical considerations for achieving maximum efficiency with broadband OCT spectrometers using a high resolution camera
S. M. Kolenderska, A. Mignot, F. Vanholsbeek, The Univ. of Auckland (New Zealand)

12.30 - 14.00 Lunch

14.00 - 16.00 Session 7. MULTIMODAL APPROACHES

Chair: Frederique Vanholsbeek

14:00 - 14:30 INVITED. All-optical Pulse-Echo Ultrasound Imaging for Guiding Minimally Invasive Procedures
Adrien Desjardins, University College London (United Kingdom)

14:30 - 14:50 Compact multispectral photoacoustic microscopy and optical coherence tomography system using a single light source for tissue imaging
M. M. Bondu, Univ. of Kent (United Kingdom) and NKT Photonics A/S (Denmark); A. Bradu, M. J. Marques, Univ. of Kent (United Kingdom); P. Moselund, NKT Photonics A/S (Denmark); G. Lall, A. G. Podoleanu, Univ. of Kent (United Kingdom)

14:50 - 15:10 Data compressed photonic time stretch optical coherence tomography based on all-optical random patterns

C. K. Mididoddi, C. Wang, Univ. of Kent (United Kingdom)

15:10 - 15:30 Akinetic dual mode-locked optical swept sources

R. Stancu, F. Toadere, A. Podoleanu, Univ. of Kent (United Kingdom)

15:30 - 15:50 Using polarisation-sensitive optical coherence tomography to confirm the suitability of the bovine model in assessment of osteoarthritis

M. Goodwin, B. Brauer, A. Thambyah, F. Vanholsbeeck, The Univ. of Auckland (New Zealand)

15.50 - 16.30 Santec Coffee Break

16.30 - 17.40 Session 8. NON-DESTRUCTIVE TESTING AND ART CONSERVATION

Chair: Michael Hughes

16.30 - 17.00 INVITED. Advances in OCT for archaeology, art conservation and history

Haida Liang, Nottingham Trent Univ. (United Kingdom)

17.00 - 17.20 (Full field) optical coherence tomography and applications

B. Heise, RECENDT GmbH (Germany) and Johannes Kepler Univ. Linz (Australia); B. Buchroithner, Johannes Kepler Univ Linz (Austria); G. Hanneschläger, E. Leiss-Holzinger, A. Prylepa, RECENDT GmbH (Austria)

17:20 - 17:40 Impact of superior absorber on spectroscopic spectral domain interferometry

F. T. Fleischhauer, Univ. of Kent (United Kingdom) and NKT Photonics A/S (Denmark); T. Feuchter, L. Leick, NKT Photonics A/S (Denmark); R. Rajendram, NIHR Moorfields Biomedical Research Ctr. (United Kingdom) and Univ. College London (United Kingdom); A. G. Podoleanu, Univ. of Kent (United Kingdom)

17.40 - 18.20 Session 9. OCT IN DENTISTRY

Chair: Grigory Gelikonov

17:40 - 18:00 Swept source optical coherence tomography used for nondestructive investigation of the variations of firing temperature of ceramic-fused to-metal dental prostheses

M. Negrutiu, C. Sinescu, F. Topala, Univ. of Medicine and Pharmacy Victor Babes Timisoara (Romania); A. Bradu, Univ. of Kent (United Kingdom); V. Duma, Aurel Vlaicu' University of Arad (Romania); A. G. Podoleanu, Univ. of Kent (United Kingdom)

18:00 - 18:20 OCT investigation of dental lesions

E. Osiac, S. Popescu, V. Mercur, M. Scriciu, R. Mercur, Univ. of Medicine and Pharmacy of Craiova (Romania)

19.00 Gala Dinner

Friday 8 September

09.00 - 11.00 Session 10. CONDITIONING THE SIGNAL

Chair: Adrian Podoleanu

09.00 - 09.30 **INVITED. Supercontinuum and Bessel beams in OCT and elastography - why does it work so well?**

David Sampson, Univ. of Western Australia (Australia)

09:30 - 09:45 **Swept source optical coherence tomography of objects with arbitrary reflectivity profiles**

B. Mezgebo, K. Nagib, Univ. of Manitoba (Canada); F. Namal, Manitoba Hydro (Canada); B. Kordi, S. S. Sherif, Univ. of Manitoba (Canada)

09:45 - 10:00 **Coherence and diffraction limited resolution in microscopic OCT by a unified approach for the correction of dispersion and aberrations**

M. Münter, M. Ahrens, H. Spahr, D. Hillmann, H. Schulz-Hildebrandt, P. König, G. Hüttmann, Medical Laser Center, Lübeck, Institute of Biomedical Optics, Thorlabs GmbH, Institute of Anatomy, University of Lübeck

10:00 - 10:15 **Quantitative phase imaging with low-coherence holographic microscopy**

Radim Chmelík, Jana Čolláková, Jiří Petráček, Brno University of Technology (Czech Republic)

10:15 - 10:30 **Fast detection of vascular plaque in optical coherence tomography images using a reduced feature set**

S. S. Sherif, A. Prakash, M. Ocana, Univ. of Manitoba (Canada); M. Hewko, M. Sowa, National Research Council Canada (Canada)

10:30 - 10:45 **Phase estimation for global defocus correction in optical coherence tomography**

Mikkel Jensen, Niels M. Israelsen, DTU (Denmark); Adrian Podoleanu, Univ. of Kent (United Kingdom); Ole Bang, DTU (Denmark)

10:45 - 11:00 **Increasing signal-to-noise ratio of swept-source optical coherence tomography by oversampling in k-space**

S. S. Sherif, K. Nagib, B. Mezgebo, B. Kordi, Univ. of Manitoba (Canada); N. Fernando, Manitoba Hydro (Canada)

11.00 - 11.30 Thorlabs Coffee Break

11.30 - 12.40 Session 11. MASTER SLAVE OCT

Chair: Yun-Jiang Rao

11:30 - 11:55 **INVITED. From master slave OCT to complex master slave OCT**

Sylvain Rivet, Univ. of Brest (France); Adrian Bradu, Adrian Podoleanu, Univ. of Kent (United Kingdom)

- 11:55 - 12:10 Versatile hand-held master-slave optical coherence tomography instrument for non-destructive testing**
M. M. Marques, A. Bradu, Univ. of Kent (United Kingdom); S. Rivet, Univ. de Bretagne Occidentale (France); R. Cernat, Univ. of Kent (United Kingdom); N. M. Israelsen, O. Bang, DTU Fotonik (Denmark); A. G. Podoleanu, Univ. of Kent (United Kingdom)
- 12:10 - 12:25 Master slave enhanced low coherence interferometry based proximity sensors for medical robotics**
A. Bradu, M. Marques, M. Hughes, Univ. of Kent (United Kingdom); G. Yang, Imperial College London (United Kingdom); A. G. Podoleanu, Univ. of Kent (United Kingdom)
- 12:25 - 12:40 A study of FFT and master-slave interferometry signal processing methods for fiber laser Doppler heterodyne vibrometers**
D. A. Jackson, M. M. Marques, A. Bradu, A. Podoleanu, Univ. of Kent (United Kingdom)

12.40 - 14.00 Lunch

14.00 - 14.30 Session 12. INDUSTRY FORUM (II)

Chair: Adrian Bradu

14:00 - 14:30 INVITED. Commercial supercontinuum sources for imaging applications
Lucy Hooper, Adam Devine, Peter M Moselund, Roger Kirke, Joanna Carthy, Ross Powell, Fianium (United Kingdom)

14.30 - 15.45 Session 13. RANDOM LASERS AND SWEEP SOURCES

Chair: George Dobre

14:30 - 15:00 INVITED. Novel optical sources based on random fiber laser
Yun-Jiang Rao, Univ. of Electronic Science and Technology of China (UESTC) Chengdu, Sichuan (China)

15:00 - 15:15 Phase sensitive optothermal OCT microscopy
Y. Hu, A. Podoleanu, G. Dobre, Univ. of Kent (United Kingdom)

15:15 - 15:30 Optimisation of a polygon mirror-based, spectral filter for swept source optical coherence tomography (SS-OCT)
M. Everson, Univ. of Kent (United Kingdom); V. Duma, 3OM Optomechatronics Group, Roman (Romania); G. Dobre, Univ. of Kent (United Kingdom)

15:30 - 15:45 Stable supercontinuum source based on random lasing
R. Ma, Y. Rao, W. Zhang, X. Zeng, H. Wu, Univ. of Electronic Science and Technology of China (China)

15.45 - 16.00 Best Oral Presentation Prize and Closing Remarks

Announcement of the prize for the best oral presentation delivered by a student, sponsored by the OSA Student Chapter at the University of Kent.

List of Posters

1. OCT IN OPHTHALMOLOGY **Line full field OCT for eye examination**
Tomas Pola, Adrian Bradu, Adrian Podoleanu. Univ. of Kent (United Kingdom)

2. MICROSCOPY AND ENDOSCOPY **REBOT: Robotic Endobronchial Optical Tomography**
Manuel J. Marques, Michael R. Hughes, Adrian Bradu, Grigory V. Gelikonov, Guang-Zhong Yang, Adrian Podoleanu

3. MASTER SLAVE OCT **Gabor master slave OCT for enhanced resolution and penetration**
Ramona Cernat, Adrian Bradu, Niels Israelsen, Ole Bang, Adrian Podoleanu. Univ. of Kent (United Kingdom); DTU (Denmark)

4. OCT IN DENTISTRY **New ways of combating demineralization – link between classic and allopathic medicine**
Laura Idorași, Sandra Andreea Secoșan, Alexandru Ogodescu, Cosmin Sinescu, Zaharia Cristian, Adrian G. Podoleanu, Meda-Lavinia Negruțiu. University of Medicine and Pharmacy Victor Babes Romania), Univ. of Kent (United Kingdom)

5. OCT IN DENTISTRY **Impact of 3D (three dimensional) images captured by OCT (Optical coherence Tomography) in CAD/CAM (Computer Aided Design/Computer aided Manufacture) digital dentistry: An analytical review for precision restorations and skill development for practitioners**
Souman Barua, Cosmin Sinescu, Meda Lavinia Negrutiu, Virgil-Florin Duma, Adrian G Podoleanu. University of Medicine and Pharmacy Victor Babes Romania), Univ. of Kent (United Kingdom)

6. OCT IN DENTISTRY **OCT aspects of dental hard tissues changes induced by excessive occlusal forces**
Monica Scriciu, Veronica Mercuța, Sanda Mihaela Popescu, Daniela Tărâță, Eugen Osiac. University of Medicine and Pharmacy Craiova, Romania

7. CONDITIONING THE SIGNAL **Reduction of measurement errors in OCT scanning**
E.N. Morel, P.M. Tabla, M. Sallese, J.R. Torga. Univ. Tecnológica Nacional (Argentina)

8. CONDITIONING THE
SIGNAL

**Long axial imaging range using conventional swept source lasers
in optical coherence tomography via re-circulation loops**

*A. Bradu, D. A. Jackson, and A. Podoleanu. Univ. of Kent (United
Kingdom)*

9. MICROSCOPY AND
ENDOSCOPY

**Towards an ultra-thin medical endoscope: multimode fibre as a
wide-field image transferring medium**

*M. Duris, M.R.Hughes, A. Bradu, A. Podoleanu. Univ. of Kent
(United Kingdom)*

10. MICROSCOPY AND
ENDOSCOPY

**Immunofluorescent confocal microscopy of angiogenesis and
invasion induced by a small peptide chemokine system in
glioblastoma.**

*H. Castel. Institute of Research and Biomedical Innovation, Univ. of
Rouen (France)*