

Optical Networks 19 & 20 September 2019



Optical Networks-the next 25 years Thursday 19 September 2019

12.00pm-1.00pm: Registration & lunch, Darwin lecture theatre foyer, UCL

1.00pm-2.40pm: Session 1: New bands vs classic bands - Ben Puttnam, NICT

1.00pm-1.10pm: Welcome address

Polina Bayvel, Head of Optical Networks Group (ONG) and PI/Director of the EPSRC TRANSNET Programme

1.10pm-1.30pm: Noise and bandwidth-to beat and expand

Lidia Galdino, UCL ONG and Co-Investigator on the EPSRC TRANSNET Programme

1.30pm-1.50pm: Whole band wavelength conversion

Takeshi Hoshida, Fujitsu Laboratories Limited, Japan

1.50pm-2.10pm: Broadband transmission: will WDM expand beyond C-band in the next 25 years?

Vitaly Mikhailov, OFS Laboratories

2.10pm-2.30pm: Why using alternative wavelength bands will not solve the capacity crunch

Peter Winzer, Nokia Bell-Labs, US

2.30pm-2.40pm: DISCUSSION

2.40pm-3.00pm: Tea & coffee break

3.00pm-4.50pm: Session 2: Signal processing - Zhixin Liu, UCL ONG & Co-Investigator, EPSRC TRANSNET Programme

3.00pm-3.20pm: Physically-assisted processing in capacity-limited lightwave networks

Stojan Radic, Jacobs School of Engineering

3.20pm-3.45pm: Space division multiplexing for microwave signal processing

Ivana Gasulla, ITEAM Research Institute of the Universitat Politècnica de València (UPV)

3.45pm-4.00pm: Digital processors for optical communications: state-of-the-art and future outlook

Giancarlo Gavioli, Nokia and former ONG member

4.00pm-4.20pm: Phase-sensitive amplifiers for deep space optical communications

Peter Andrekson, Chalmers University

4.20pm-4.40pm: The Kramers-Kronig receiver: operation principles and implementations

Cristian Antonelli, University of L'Aquila

4.40pm-4.50pm: DISCUSSION

4.50pm-5.15pm: Tea & coffee break

5.15pm-6.15pm: Optical communications in the 2040s: future photonic technology advances for exabit/s networks
Professor Robert Killey's Inaugural Lecture, UCL ONG

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UCL

Optical Networks-the next 25 years Friday 20 September 2019

8.30am-9.00am: Tea & coffee, Darwin lecture theatre foyer, UCL

9.00am-10.30am: Session 1: Fibres and devices - Sergejs Makovejs, CORNING and former ONG

9.00am-9.20am: Solving the core problem in future optical fibre communications

David Richardson, Optoelectronics Research Centre, University of Southampton

9.20am-9.40am: Transmission fibres for the next 25 years

Takemi Hasegawa, Sumitomo Electric Industries Ltd

9.40am-10.00am: Applications of 2microns technologies in the next 25 years: from telecoms to sensors

Fatima Gunning, Tyndall National Institute

10.00am-10.20am: Wavelength selective switches for ultra-wideband systems

Nick Fontaine, Nokia Bell-Labs

10.20am-10.30am: DISCUSSION

10.30am-11.00am: Tea & coffee break

11.00am-12.30pm: Session 2: Non-linearity and capacity - Eric Sillekens, UCL ONG

11.00am-11.20am: Practical error correction in optical communications

Erik Agrell, Co-founder of the Fibre-Optic Communications Research Center (FORCE), Chalmers University of Technology

11.20am-11.40am: Inter-channel stimulated Raman scattering and its impact in ultra-wideband optical transmission systems

Daniel Semrau, Researcher, UCL ONG

11.40am-12.00pm: Real-time modelling of nonlinear effects in long-haul ultra-broadband optical networks

Pierluigi Poggiolini, Optical Communications Group, Politecnico di Torino

12.00pm-12.20pm: Which technologies can win the quest for ultra-high capacity?

Olga Vassilieva, Fujitsu Laboratories of America

12.20pm-12.30pm: DISCUSSION

12.30pm-1.00pm: Session 3: Lightning talks - ONG researcher & friends poster preview

1.00pm-2.30pm: Lunch and posters, Darwin lecture theatre foyer, UCL

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2.30pm-5.00pm: Session 4: Networks - Georgios Zervas, UCL ONG & Co-Investigator, EPSRC TRANSNET Programme

2.30pm-2.50pm: Optics for the cloud

Benn Thomsen, Microsoft Research and former ONG

2.50pm-3.10pm: Toward future high-capacity and agile optical network

Hideaki Furukawa, National Institute of Information and Communications Technology, Tokyo, Japan

3.10pm-3.30pm: Should future optical networks have system margin?

Seb Savory, University of Cambridge, EPSRC TRANSET Co-Investigator and former ONG

3.30pm-3.50pm: Optical network security: security at the speed of light?

Marija Furdek, Chalmers University of Technology

3.50pm-4.10pm: Scalable spatial division multiplexed optical network

Takehiro Tsuritani, KDDI Research

4.10pm-4.30pm: How much faster will the internet get-will better optical networks help?

Domaniç Lavery, UCL ONG and Co-Investigator on the EPSRC TRANSNET Programme

4.30pm-5.00pm: DISCUSSION

5.00pm: CLOSE & DRINKS