



12TH INTERNATIONAL CONFERENCE ON TRANSPARENT OPTICAL NETWORKS

Technical Agenda

Letter from IEEE Region 8 Director	Welcome to the 12th International Conference on Transparent Optical Networks and the 2nd Annual Conference of COST Action MP0702: Towards Functional Sub-Wavelength Photonic Structures , co-located with:
Scientific & Organising Committees	- 9th European Symposium on Photonic Crystals, ESPC
Conference information	- 9th Workshop on All-Optical Routing, WAOR
Venues and events	- 7th Global Optical & Wireless Networking Seminar, GOWN
Conference registration	- 6th Reliability Issues in Next Generation Optical Networks Workshop, RONEXT
Travel information	- 6th Photonic Integrated Components & Applications Workshop, PICAW
Sponsoring information	- 5th Nanophotonics for All-Optical Networking Workshop, NAON
Contact	- 5th Special Session on Microresonators and Photonic Molecules: trapping, harnessing and releasing light, MPM
	- 5th Special Industrial Session
	- 4th Special Session on Novel glasses for photonic devices
	- 3rd Special Session on Market in Telecommunications (MARS)
	- 2nd SARDANA-BONE Workshop on Broadband Access
	- 1st Workshop on Communication in Automotive Systems, CAS

IEEE Catalog Number: CFP10485-USB
ISBN: 978-1-4244-7797-5

Formal publisher:
[National Institute of Telecommunications](#)
Department of Transmission and Optical Technologies
1 Szachowa Street, Warsaw, Poland.

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Sub-Wavelength Photonics (SWP) is an ICTON section comprising **ESPC**, **MPM**, **NAON**, **Novel Glasses**, and **PICAW** events.

The **SWP** is organized in a cooperation with [COST Action MP0702: Towards Functional Sub-Wavelength Photonic Structures](#)

under a responsibility of Trevor Benson Trevor.Benson@nottingham.ac.uk

Special session organisers:

Svetlana Boriskina, SBoriskina@gmail.com and **Vasily N. Astratov**, astratov@uncc.edu
for the **Microresonators and Photonic Molecules - trapping, harnessing and releasing light session**

Uri Mahlab, Uri.mahlab@ecitele.com and **Karin Ennser**, k.ennser@swansea.ac.uk
for the **Industrial session**

Angela Seddon, Angela.Seddon@nottingham.ac.uk and
David Furniss, David.Furniss@nottingham.ac.uk
for the **Novel glasses for photonic devices session**

Giorgio M Tosi Beleffi Giorgio.tosibeleffi@comunicazioni.it
for the **Market in Telecommunications session**

John Mitchell j.mitchell@ee.ucl.ac.uk and **Josep Prat** jprat@tsc.upc.edu
for **SARDANA-BONE Workshop on Broadband Access**

ICTON 2010 Technical Program

Sunday, June 27

14:00 - 17:00 **Registration** is open at Technische Universität München

17:00 - 18:00 **City tours** start at the fish fountain (Fischbrunnen) on Marienplatz

Monday, June 28

7:30 **Registration**

Opening Ceremony (8:30 – 9:00) Plenary hall

Chair: Norbert Hanik

SESSION Mo.A (9:00 – 10:00) Plenary hall

Plenary

Chair: Hans-Georg Unger

Mo.A.1 European and American research toward next-generation optical access networks (*Invited*)

9:00 L.G. Kazovsky, C. Popp Larsen, D. Breuer, A. Gavler, M. Popov, K. Wang, G. Jacobsen, E. Weis, C. Lange, S.W. Wong, S-H. Yen, V. Gudla, P. Afshar

Mo.A.2 Optical technologies that enable Green networks (*Invited*)

9:20 K-I. Sato

Mo.A.3 Micro-/nano-photonic device structures: Analysis and applications in communications and sensing (*Invited*)

9:40 R.M. De La Rue

10:00 – 10:30 **Coffee break**

10:00 – 10:30 **Coffee break**

10:00 – 10:30 **Coffee break**

10:00 – 10:30 **Coffee break**

<p>SESSION Mo.B1 (10:30 – 12:30) Plenary hall ICTON I – General I <i>Chair: Naoya Wada</i></p> <p>Mo.B1.1 Advanced modulation formats and digital signal processing for fiber optic communication (<i>Invited</i>) A. Gorskstein, D. Sadot</p> <p>Mo.B1.2 Performance of adaptive low-density parity check codes in a low cost spectrum-sliced WDM network (<i>Invited</i>) S. Sun, M.S. Leeson</p> <p>Mo.B1.3 Light-by-light polarization control for telecommunication applications (<i>Invited</i>) J. Fatome, S. Pitois, P. Morin, C. Finot, G. Millot</p> <p>Mo.B1.4 All-optical RZ-to-NRZ format converters based on nonlinearity and walk-off in optical fibers P. Honzatko, M. Karasek</p> <p>Mo.B1.5 All-optical variable delay buffer for next generation optical networks I. Ashry, H.M.H. Shalaby</p> <p>Mo.B1.6 Phase-preserving multilevel amplitude regeneration using a modified nonlinear amplifying loop mirror M. Hierold, T. Roethlingshoefer, K. Sponzel, G. Onishchukov, B. Schmauss, G. Leuchs</p> <p>Mo.B1.7 Red and orange tunable fiber laser R. Al-Mahrous, R. Caspary, W. Kowalsky</p>	<p>SESSION Mo.B2 (10:30 – 12:30) Auditorium A SWP I (WG1) <i>Chair: Alex Nosich</i></p> <p>Mo.B2.1 Homogenization of metamaterials: Parameters retrieval methods and intrinsic problems (<i>Invited</i>) A. Andryieuski, R. Malureanu, A.V. Lavrinenko</p> <p>Mo.B2.2 Design, synthesis and photophysical study of fluorophore modified noble metal nanoparticles (<i>Invited</i>) P. Angelova, N. Kuchukova, G. Dobrikov, I. Petkova, I. Timcheva, K. Kostova, E. Vauthey, E. Giorgetti</p> <p>Mo.B2.3 Thin metamaterials as antireflection coating (<i>Invited</i>) E. Popov, S. Enoch</p> <p>Mo.B2.4 Designing metamaterials for the optical regime (<i>Invited</i>) M. Kafesaki, R. Penciu, T. Koschny, N.H. Shen, E.N. Economou, C.M. Soukoulis</p> <p>Mo.B2.5 Diffractive effects in 1D and 2D gain/loss periodic spatial modulated materials (<i>Invited</i>) R. Herrero, M. Botey, K. Staliunas</p> <p>Mo.B2.6 Metal nanoisland films for the enhancement of the chemico-physical properties of molecular adsorbates (<i>Invited</i>) E. Giorgetti, G. Margheri, T. Del Rosso, S. Sottini, M. Muniz-Miranda, S. Cicchi</p>	<p>SESSION Mo.B3 (10:30 – 12:30) Auditorium B WAOR I <i>Chair: Carmen Mas-Machuca</i></p> <p>Mo.B3.1 Analysis of traffic engineering information dissemination strategies in PCE-based multi-domain optical networks (<i>Invited</i>) S. Spadaro, J. Perelló, G. Hernández-Sola, A. Moreno, F. Agraz, J. Comellas, G. Junyent</p> <p>Mo.B3.2 Scalable and agnostic optical packet switch sub-system for optical packets with multiple modulation formats and data rates (<i>Invited</i>) N. Calabretta, W. Wang, T. Ditlewig, O. Raz, F. Gomez-Agis, S. Zhang, H. de Waardt, H.J.S. Dorren</p> <p>Mo.B3.3 A collisions-free WDMA strategy for ring MANs with efficient traffic management: A performance optimization study P. Baziana, I. Pountourakis</p> <p>Mo.B3.4 Hopfield neural networks for routing in all-optical networks C.J.A. Bastos-Filho, R.A. Santana, D.R.C. Silva, J.F. Martins-Filho, D.A.R. Chaves</p> <p>Mo.B3.5 A receiver collisions WDMA protocol study with propagation delay latency analysis P. Baziana, I. Pountourakis</p> <p>Mo.B3.6 Analysis of unbalanced WDM/OCDM transparent optical networks with physical constraints L.H. Bonani, L. Galdino, F.R. Duran, E. Moschim</p> <p>Mo.B3.7 Application of Internet traffic characterization to all-optical networks (<i>Invited</i>) P.M. Santiago del Río, J. Ramos, A. Salvador, J.E. López de Vergara, J. Aracil, A. Cuadra, M. Cutanda</p>	<p>SESSION Mo.B4 (10:30 – 12:25) “Einsäulen” hall PICAW <i>Chair: Stefano Taccheo</i></p> <p>Mo.B4.1 Interfacing of silicon-on-insulator nanophotonic circuits to the real world (<i>Invited</i>) L. Wosinski, Z. Wang, Y. Tang</p> <p>Mo.B4.2 Modelling and optimising planar waveguide devices (<i>Invited</i>) L. Cahill, T. Clapp</p> <p>Mo.B4.3 Low-cost optical components based on organic-inorganic hybrids produced using direct UV writing technique (<i>Invited</i>) R.A.S. Ferreira, C. Vicente, L.R. Xavier, V. Fernandes, L.D. Carlos, P.S. André, E. Pecoraro, V. De Zea Bermudez, P. Monteiro, P.V.S. Marques</p> <p>Mo.B4.4 Analysis and integration of plasmonic wires and rings for VLSI photonics (<i>Invited</i>) E-H. Lee</p> <p>Mo.B4.5 Designing wavelength-division-multiplexed optical access networks using reflective photonic components (<i>Invited</i>) E. Kehayas</p> <p>Mo.B4.6 Research progress on free-space-wave add/drop multiplexing for WDM optical-interconnect system in packaging (<i>Invited</i>) S. Ura, K. Kintaka</p>
12:30 – 14:00 Lunch break	12:30 – 14:00 Lunch break	12:30 – 14:00 Lunch break	12:25 – 14:00 Lunch break
<p>SESSION Mo.C1 (14:00 – 15:40) Plenary hall ICTON II – Devices <i>Chair: Roger Green</i></p>	<p>SESSION Mo.C2 (14:00 – 15:55) Auditorium A SWP II (WG1) <i>Chair: Andrea Chiappini</i></p>	<p>SESSION Mo.C3 (14:00 – 16:00) Auditorium B WAOR II <i>Chair: Nicola Calabretta</i></p>	<p>SESSION Mo.C4 (14:00 – 15:40) “Einsäulen” hall MARS I <i>Chair: Giorgio M. Tosi Beleffi</i></p>

Mo.C1.1 14:00	Application of trapped pulse amplification in birefringent fibers (<i>Invited</i>) <i>N. Nishizawa, E. Shiraki, K. Itoh</i>	Mo.C2.1 14:00	From plasmonics to supercontinuum generation: Subwavelength scale devices based on hybrid photonic crystal fibers (<i>Invited</i>) <i>M. Schmidt, H. Tyagi, H. Lee, N. Granzow, N. Da, M. Peng, L. Wondraczek, P.St.J. Russell</i>	Mo.C3.1 14:00	On the physical impairments constraint in OBS networks (<i>Invited</i>) <i>O. Pedrola, D. Careglio, M. Klinkowski, J. Solé-Pareta</i>	Mo.C4.1 14:00	A techno-economic case-study for an FTTH network deployment (<i>Invited</i>) <i>I. Tomkos</i>
Mo.C1.2 14:20	Analysis of soliton complexes in high power fiber lasers (<i>Invited</i>) <i>M. Salhi, F. Amrani, A. Haboucha, A. Komarov, H. Leblond, F. Sanchez</i>	Mo.C2.2 14:20	Influence of localised surface plasmons on energy transfer between quantum dots (<i>Invited</i>) <i>M. Lunz, A.L. Bradley, W-Y. Chen, V.A. Gerard, S.J. Byrne, Y.K. Gun'ko, V. Lesnyak, N. Gaponik, A.S. Susha, A.L. Rogach</i>	Mo.C3.2 14:20	Virtual topology design in OBS networks (<i>Invited</i>) <i>M. Klinkowski, P. Pedroso, M. Pióro, D. Careglio, J. Solé-Pareta</i>	Mo.C4.2 14:20	General framework for techno-economic analysis of next generation access networks (<i>Invited</i>) <i>M. Kantor, K. Wajda, B. Lannoo, K. Casier, S. Verbrugge, M. Pickavet, L. Wosinska, J. Chen, A. Mitcsenkov</i>
Mo.C1.3 14:40	Phase locking and carrier extraction schemes for phase sensitive amplification (<i>Invited</i>) <i>S. Sygletos, R. Weerasuriya, S.K. Ibrahim, F. Gunning, R. Phelan, J. O'Gorman, J. O'Carroll, B. Kelly, A. Bogris, D. Syvridis, C. Lundström, P. Andrekson, F. Parmigiani, D.J. Richardson, A.D. Ellis</i>	Mo.C2.3 14:40	Plasmonic nanostructures for enhanced light concentration devoted to photovoltaic applications (<i>Invited</i>) <i>V. Marrocco, M. Grande, R. Marani, G. Calò, V. Petruzzelli, A. D'Orazio, T. Stomeo, M. De Vittorio, A. Passaseo</i>	Mo.C3.3 14:40	Performance evaluation of a hybrid OBS/OCS network with QoS differentiation based on packet loss/delay requirements (<i>Invited</i>) <i>J. Perelló, N. de Guinea, S. Spadaro, G. Junyent, J. Comellas</i>	Mo.C4.3 14:40	Techno-economic feasibility study of different WDM/TDM PON architectures (<i>Invited</i>) <i>B. Lannoo, G. Das, M. De Groote, D. Colle, M. Pickavet, P. Demeester</i>
Mo.C1.4 15:00	Novel applications of the acousto-optic effect in the control of fibre Bragg grating parameters (<i>Invited</i>) <i>A. de Almeida Prado Pohl, R.A. de Oliveira, C.A.F. Marques, K. Cook, R. Nogueira, J. Canning</i>	Mo.C2.4 15:00	Wavelength-scale analysis of optical field localisation at plasmonic resonance in non-linear Kretschmann structure by the method of single expression (<i>Invited</i>) <i>H.V. Baghdasaryan, T.M. Knyazyan, T.T. Hovhannisyán, M. Marciniak</i>	Mo.C3.4 15:00	Constraining queuing delay in WDM rings based on multi-token access protocol under asymmetrical traffic (<i>Invited</i>) <i>P.G. Raponi, N. Andriolli, P. Castoldi, M. Puleri</i>	Mo.C4.4 15:00	Network applications and economic considerations for fully flexible multi-way ROADM / optical cross-connect architectures (<i>Invited</i>) <i>R. Dorward</i>
Mo.C1.5 15:20	Physical path analysis in photonic switches with shared wavelength converters (<i>Invited</i>) <i>C. Raffaelli, M. Savi, G. Tartarini, D. Visani</i>	Mo.C2.5 15:20	On the nature of red and blue shifts of light emission relative to the absorption spectrum (<i>Invited</i>) <i>R. Brazis</i>	Mo.C3.5 15:20	Node architecture design and network engineering impact on optical multicasting based on physical layer constraints (<i>Invited</i>) <i>T. Panayiotou, G. Ellinas, N. Antoniadés, A. Hadjiantonis</i>	Mo.C4.5 15:20	Dimensioning optical networks: A practical approach (<i>Invited</i>) <i>A.N. Pinto, C. Pavan, R.M. Morais</i>
		Mo.C2.6 15:40	Transport properties of one-way EM waveguide formed at the interface between metal and two-dimensional photonic crystal <i>S. Eyderman, V. Kuzmiak, M. Vanwolleghem</i>	Mo.C3.6 15:40	Renewable energy in IP over WDM networks (<i>Invited</i>) <i>X. Dong, T. El-Gorashi, J.M.H. Elmirghani</i>		

15:40 – 16:10 **Coffee break** 15:55 – 16:25 **Coffee break** 16:00 – 16:25 **Coffee break** 15:40 – 16:10 **Coffee break**

SESSION Mo.D1 (16:10 – 18:10) Plenary hall ICTON III – Systems I <i>Chair: Hitoshi Kawaguchi</i>		SESSION Mo.D2 (16:25 – 18:05) Auditorium A SWP III (WG2) <i>Chair: Bjorn Maes</i>		SESSION Mo.D3 (16:25 – 17:45) Auditorium B WAOR III <i>Chair: Mirek Klinkowski</i>		SESSION Mo.D4 (16:10 – 17:30) "Einsäulen" hall MARS II <i>Chair: Mirosław Kantor</i>	
Mo.D1.1 16:10	Analysis of the optimum dispersion maps for DQPSK systems (<i>Invited</i>) <i>A. Cartaxo, N. Costa, D. Fonseca</i>	Mo.D2.1 16:25	Photonic functional devices for future communication systems (<i>Invited</i>) <i>H. Tsuda</i>	Mo.D3.1 16:25	Experimental study and assessment of the link distance impact in an OSNR-based IRWA algorithm in GMPLS-enabled translucent WSON networks (<i>Invited</i>) <i>R. Martínez, R. Casellas, R. Muñoz, T. Tsuritani</i>	Mo.D4.1 16:10	Optimization framework for supporting 40 Gb/s and 100 Gb/s services over optical transport networks (<i>Invited</i>) <i>J. Pedro, J. Santos, P. Monteiro, J. Pires</i>
Mo.D1.2 16:30	Performance of stereo multiplexing in systems using direct detection with optimum dispersion maps (<i>Invited</i>) <i>O. Gaete, L. Coelho, B. Spinnler, N. Hanik</i>	Mo.D2.2 16:45	Processing of telecommunication signals using periodically poled lithium niobate waveguides (<i>Invited</i>) <i>P. Petropoulos, S. Liu, K.J. Lee, F. Parmigiani, K. Gallo, D.J. Richardson</i>	Mo.D3.2 16:45	Lightpath establishment in distributed GMPLS-controlled dynamic transparent optical networks using quality of transmission estimation <i>N. Sambo, Y. Pointurier, P. Castoldi, I. Tomkos</i>	Mo.D4.2 16:30	Dimensioning of optical networks under unconstrained blocking probabilities (<i>Invited</i>) <i>H. Waldman, R. Bortoletto, G.S. Pavani</i>
Mo.D1.3 16:50	Stabilization of wavelength conversion using high-stable optical limiting based on self-phase modulation (<i>Invited</i>) <i>T. Konishi, K. Kawanishi</i>	Mo.D2.3 17:05	Polarization entangled photon-pair source based on a type-II PPLN waveguide emitting at a telecom wavelength (<i>Invited</i>) <i>A. Martin, A. Issautier, L. Labonté, A. Thomas, H. Herrmann, W. Sohler, D.B. Ostrowsky, O. Alibart, S. Tanzilli</i>	Mo.D3.3 17:00	Resource allocation for contention-resolution strategies in OPS <i>C. Mex-Perera, J. Mozo-Olea, G. Castañón, I. Razo-Zapata</i>	Mo.D4.3 16:50	Utilization of fiber to the home as a Blue Ocean Strategy to gain competitive advantage (<i>Invited</i>) <i>M. Zuhdi, E.T. Pereira, A. Teixeira</i>
Mo.D1.4 17:10	Terabit/s FFT processing – Optics can do it on-the-fly (<i>Invited</i>) <i>J. Leuthold, D. Hillerkuss, M. Winter, J. Li, K. Worms, C. Koos, W. Freude, S. Ben-Ezra, N. Narkiss</i>	Mo.D2.4 17:25	Subwavelength nanophotonics: From a new waveguide principle to practical components at telecom wavelengths (<i>Invited</i>) <i>P. Cheben, P.J. Bock, J. H. Schmid, J. Lapointe, S. Janz, D-X. Xu, A. Densmore, A. Delage, B. Lamontagne, T.J. Hall, I. Molina-Fernandez, W. Sinclair</i>	Mo.D3.4 17:15	Efficiency issues of multi-domain routing <i>Z. Csermátóny, A. Vasileva Manolova, T. Cinkler</i>	Mo.D4.4 17:10	Benefits of fine QoT-estimator to dimension spare resources in automatic restorable networks (<i>Invited</i>) <i>A. Morea, J-C. Antona</i>
Mo.D1.5 17:30	Power efficient and cost-effective solutions for optical OFDM systems using direct detection (<i>Invited</i>) <i>M. Svaluto Moreolo</i>	Mo.D2.5 17:45	Development of spiral shape photonic devices (<i>Invited</i>) <i>A. Delage, D-X. Xu, A. Densmore, P. Cheben, M. Florjanczyk, S. Janz</i>	Mo.D3.5 17:30	Performance evaluation of an optical packet switch using wavelength and code domain to solve output contentions <i>V. Eramo, L. Piazza, M. Listanti, A. Germoni, A. Cianfrani</i>		

Mo.D1.6 Long-haul transmission of polarization multiplexed signals with coherent detection (*Invited*)
M.S. Affiad, D. van den Borne, T. Wuth, M. Kuschnerov, H. de Waardt

SESSION Mo.P (Poster I – MPM, ESPC, NAON) 14:00 – 16:00

- Mo.P.1** Numerical analysis of adjustable gain-clamped semiconductor optical amplifier (AGC-SOA) performance
L. Liu, C. Michie, A.E. Kelly, I. Andonovic
- Mo.P.2** Generalized analysis of the polarization evolution in high-birefringence fibers
N.J. Muga, N.A. Silva, M.F.S. Ferreira, A.N. Pinto
- Mo.P.3** Photon pair generation 1310 – 1550 nm based on active photonic crystal: Heralded single photon source model
M. Attia, R. Chatta
- Mo.P.4** Reduction of the overall coupling loss using nonuniform tapered microstructured optical fiber
F. Bahloul, R. Attia, D. Pagnoux
- Mo.P.5** On the reflectivity of one-dimensional photonic crystal realized in dichromated pullulan
V. Damljanović, S. Savić-Sević, D. Pantelić, B. Jelenković
- Mo.P.6** Engineered chromatic dispersion in photonic crystal fibers selectively doped with water
M. Lucki
- Mo.P.7** Ring-shaped two-dimensional photonic crystal structures showing large higher-order stop-bands
S. Zarei, M. Shahabadi, A. Zarei
- Mo.P.8** The narrowing of the transmittance band gaps in a multilayered microsphere with quasiperiodic left-handed stack
G. Burlak, A. Díaz-de-Anda
- Mo.P.9** Phase space engineering in optical microcavities: II. Controlling the far-field
J. Poirier, G. Painchaud-April, D. Gagnon, L.J. Dubé
- Mo.P.10** Resonator modes in a two-dimensional quasi-stadium laser diode with concave end mirrors
T. Fukushima, K. Nishiyama, K. Sakaguchi, Y. Tokuda
- Mo.P.11** Thickness dependent Q-spoiling in a thin dielectric coated cylindrical microcavity laser
H-J. Moon
- Mo.P.12** Resonance mode calculations in an acoustic cavity using the boundary element method
H. Kwak, Y. Shin, S-B. Lee, J. Yang, S. Moon, S-Y. Lee, S.W. Kim, J-H. Lee, K. An
- Mo.P.13** Temperature and strain-tunable microresonators in liquid crystal droplets
M. Humar, I. Mušević
- Mo.P.14** Resonant pump transmission in a strongly deformed microcavity
J. Yang, S-B. Lee, S. Moon, S-Y. Lee, S. W. Kim, J-H. Lee, K. An
- Mo.P.15** Single mode lasing in MMI coupled square semiconductor ring resonators
K-S. Hyun
- Mo.P.16** Three dimensional finite-difference frequency-domain method in modeling of photonic nanocavities
A.M. Ivinskaya, D.M. Shyroki, A.V. Lavrinenko
- Mo.P.17** Near and far fields of perturbed whispering-gallery modes in a 2-D spiral-shaped active microcavity
E.I. Smotrova, T.M. Benson, P. Sewell, R. Sauleau, A.I. Nosich
- Mo.P.18** Measurement of potential dependent DNA orientation on indium tin oxide surfaces by fluorescent-self interference microscopy
P.S. Spuhler, L. Sola, M. R. Monroe, M. Chiari, M.S. Ünlü
- Mo.P.19** Simulation of self-pulsing and chaos in coupled microring resonators
A. Sterkhova, J. Luksch, J. Petráček
- Mo.P.20** Nonlinear phase-shifts in self-assembled quantum dot samples under cw driving
T. Ackemann, A. Tierno, S. Barbay, R. Kuszelewicz, M. Brambilla
- Mo.P.21** A comparative study of temperature sensitivity of 1.3- μm In(Ga)AsP/InGaAsP multiple quantum-well vertical-cavity surface-emitting diode lasers
Ł. Piskorski
- Mo.P.22** Inherent fabrication yields and asymmetries impacts on MZI-SOA static modelling
G. Parca, R. Dionisio, C. Reis, S. Betti, G. Tosi Beleffi, A. Teixeira

18:30 **Welcome reception at the ICTON venue (Court Garden)**

Tuesday, June 29

SESSION Tu.A1
(8:30 – 10:10) Plenary hall

SARDANA-BONE I

Chair: John Mitchell

Tu.A1.1 Extension of optical access networks (*Invited*)
L. Spiekman

Tu.A1.2 ACCORDANCE: A novel OFDMA-PON paradigm for ultra-high capacity converged wireline-wireless access networks (*Invited*)
K. Kanonakis, I. Tomkos, T. Pfeiffer, J. Prat, P. Kourtessis

Tu.A1.3 Recent progresses in coherent WDM PON technologies (*Invited*)
S.P. Jung, K.Y. Cho, Y. Takushima, Y.C. Chung

Tu.A1.4 GPON scheduling disciplines under multi-service bursty traffic and long-reach approach (*Invited*)
J. Segarra, V. Sales, J. Prat

SESSION Tu.A2
(8:30 – 10:25) Auditorium A

SWP IV (WG2)

Chair: Pavel Cheben

Tu.A2.1 Light trapping efficiency in thin-film silicon photovoltaic cells with a photonic pattern (*Invited*)
L.C. Andreani, S. Zanotto, M. Lischini

Tu.A2.2 Refractive index gas sensing in a hollow photonic crystal cavity (*Invited*)
J. Jágerská, N. le Thomas, H. Zhang, Z. Diao, R. Houdré

Tu.A2.3 Attenuation of electromagnetic waves in semiconductor periodic and quasi-periodic layered waveguides in a magnetic field (*Invited*)
O.V. Shramkova

Tu.A2.4 Continuous and pulsed room temperature lasing behaviour at 1.55 μm on high quality factor photonic crystal microcavities (*Invited*)
L.J. Martínez, B. Alén, I. Prieto, D. Fuster, Y. González, L. González, M.L. Dotor, P.A. Postigo

SESSION Tu.A3
(8:30 – 10:25) Auditorium B

RONEXT/WAOR

Chair: Anna Tzanakaki

Tu.A3.1 Impact of network reliability on network costs in next generation access networks (*Invited*)
R. Hülsermann, D. Breuer, C. Lange

Tu.A3.2 Routing and wavelength assignment computed jointly for a given set of multicast trees reduces the total wavelength conversion (*Invited*)
W. Huang, L. Tang, M. Razo, A. Sivasankaran, M. Tacca, A. Fumagalli

Tu.A3.3 SRLG failure localization in transparent optical mesh networks with monitoring trees and trails
P. Babarczy, J. Tapolcai, P-H. Ho, B. Wu

Tu.A3.4 Wavelength assignment in optical networks considering physical impairments
J. Maranhao, A. Soares, H. Waldman

SESSION Tu.A4
(8:30 – 10:20) “Einsäulen” hall

MPM I

Chair: Vasily Astratov

Tu.A4.1 Optical microbubble resonator (*Invited*)
M. Sumetsky

Tu.A4.2 Resonant lenses as building blocks for advanced narrow-band integrated receivers (*Invited*)
A.V. Boriskin, A. Rolland, R.Sauleau

Tu.A4.3 Littrow resonators and the critical coupling concept (*Invited*)
H. Benisty, O. Khayam

Tu.A4.4 The challenges for numerical time domain simulations of optical resonators (*Invited*)
P. Sewell, T.M. Benson, A. Vukovic, A. Al Jarro

<p>Tu.A1.5 Remote optical monitoring in remotely power assisted passive optical networks (<i>Invited</i>) G.M. Tosi Beleffi, D.M. Forin, S. Di Bartolo, G. Incerti, V. Carrozzo, A. Andò, A. Busacca, A.L.J. Teixeira, L. Costa, A. Valenti, S. Pompei</p>	<p>Tu.A2.5 Design and fabrication techniques for a mid-infrared photonic crystal defect cavity in indium antimonide (<i>Invited</i>) J.R. Pugh, Y.L.D. Ho, P.J. Heard, G.R. Nash, T. Ashley, J.G. Rarity, M.J. Cryan</p> <p>Tu.A2.6 Discrete photonics: shaping inhomogeneous waveguide arrays to control guided light on chip – “Guidonics” N. Belabas Plougonven, C. Minot, S. Bouchoule, I. Sagnes, A. Levenson, J-M. Moisson</p>	<p>Tu.A3.5 Performance evaluation of OTDM/WDM networks in dynamic traffic scenario V. Eramo, A. Cianfrani, M. Listanti, A. Germoni, P. Cipollone, F. Matera</p> <p>Tu.A3.6 A novel optical firewall architecture for burst switched networks M. Sliiti, M. Hamdi, N. Boudriga</p> <p>Tu.A3.7 Testing the impairments of dynamic optical switching on TCP traffic through the European FEDERICA testbed infrastructure M. Ruffini, D. O’Mahony, L. Doyle</p>	<p>Tu.A4.5 Linear chain of coupled resonators with time discontinuity in permittivity N. Sakhnenko, A. Nerukh</p> <p>Tu.A4.6 Two photon absorption effect on semiconductor-based side-coupled integrated sequence of optical resonator delay lines A. Ghadi, S. Mirzanezhad</p>
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10:10 – 10:40 **Coffee break** 10:25 – 11:00 **Coffee break** 10:25 – 11:00 **Coffee break** 10:20 – 10:50 **Coffee break**

<p>SESSION Tu.B1 (10:40 – 12:30) Plenary hall SARDANA-BONE II <i>Chair: Josep Prat</i></p> <p>Tu.B1.1 Towards greener optical access networks (<i>Invited</i>) K. Ennser, B. Devlin, S. Mangeni</p> <p>Tu.B1.2 Energy efficient optical access and metro networks (<i>Invited</i>) L. Valcarenghi, I. Cerutti, P. Castoldi</p> <p>Tu.B1.3 On SLA constraints in dynamic bandwidth allocation for long-reach passive optical networks (<i>Invited</i>) B. Kantarci, H.T. Mouftah</p> <p>Tu.B1.4 Reduction of the influence of optical interferometric crosstalk noise in a WDM-PON system with a reflective semiconductor optical amplifier: An overview (<i>Invited</i>) P.J. Urban, H. De Waardt, E. Ciaramella, A.M.J. Koonen</p> <p>Tu.B1.5 Enhancement of power budget in RSOA based loop-back type WDM-PON by using the cascaded RSOAs J.H. Lee, S-H. Cho, Y.S. Jang, S-S. Lee</p> <p>Tu.B1.6 1.25 Gb/s operation of ASE injected RSOA with 50 GHz channel spacing by using injection current adjustment, dispersion management and receiver with decision threshold level control S-H. Cho, J-H. Lee, J-H. Lee, E-G. Lee, H. Hyub Lee, E-S. Jung, S.S. Lee</p>	<p>SESSION Tu.B2 (11:00 – 12:55) Auditorium A SWP V (WG3) <i>Chair: Bouchta Sahraoui</i></p> <p>Tu.B2.1 All-fiber lasers actively modelocked by acousto-optic modulation (<i>Invited</i>) C. Cuadrado-Laborde, A. Díez, J.L. Cruz, M.V. Andrés</p> <p>Tu.B2.2 Analysis of symmetric and asymmetric broadened-mode laser structures for short and ultrashort optical pulse generation (<i>Invited</i>) E.A. Avrutin, B.S. Ryvkin, J. Kostamovaara, E.L. Portnoi</p> <p>Tu.B2.3 Analysis of modal interference in photonic bandgap fibres (<i>Invited</i>) M.N. Petrovich, F. Poletti, D.J. Richardson</p> <p>Tu.B2.4 Mid-IR laser emission from a C₂H₂ gas filled hollow core fiber (<i>Invited</i>) W. Rudolph, A.V. Nampoothiri, A. Ratanavis, A. Jones, R. Kadel, B.R. Washburn, K.L. Corwin, N. Wheeler, F. Couny, F. Benabid</p> <p>Tu.B2.5 Optical characterization of the VCSEL diodes based on GaSb (<i>Invited</i>) S. Civiš, I. Matulková, J. Cihelka</p> <p>Tu.B2.6 Photoinduced absorption saturation dynamics of InGaAs quantum dot structure dedicated for wavelength 1070 nm E. Jelmakas, R. Tomašiūnas, E. Rafailov, I. Krestnikov</p>	<p>SESSION Tu.B3 (11:00 – 12:40) Auditorium B RONEXT I <i>Chair: Lena Wosinska</i></p> <p>Tu.B3.1 Impact of dual-link failures on impairment-aware WDM routed networks (<i>Invited</i>) K.N. Georgakilas, K. Katrinis, A. Tzanakaki, O.B. Madsen</p> <p>Tu.B3.2 Accuracy improvement of double fault identification on transparent optical networks (<i>Invited</i>) C. Mas Machuca, D. Wenquan, P. Thiran</p> <p>Tu.B3.3 Robustness analysis to multiple failures in GMPLS networks (<i>Invited</i>) J. Segovia, J.L. Marzo, E. Calle, P. Vilà</p> <p>Tu.B3.4 Impact of WDM network topology characteristics on the extent of failure losses (<i>Invited</i>) W. Molisz, J. Rak</p> <p>Tu.B3.5 Reliability and power density analysis of fibre Bragg gratings and thin film filter based multiplexer (<i>Invited</i>) R. Chandry</p>	<p>SESSION Tu.B4 (10:50 – 12:20) “Einsäulen” hall MPM II <i>Chair: Artem Boriskin</i></p> <p>Tu.B4.1 Symmetry-induced dispersion and performance penalty in coupled resonator optical waveguides (<i>Invited</i>) J. Scheuer</p> <p>Tu.B4.2 Optimisation of coupled-resonator optical waveguide couplers (<i>Invited</i>) A. Vukovic, P. Sewell, T.M. Benson</p> <p>Tu.B4.3 Ultra-low threshold glass thin film random lasers (<i>Invited</i>) G. Jose, P. Steenson, Z. Ikonc, C.A. Evans, M. Irannejad, P. Harrison, A. Jha</p> <p>Tu.B4.4 Light splitting function of branched chains of transparent microspheres T. Mitsui, Y. Wakayama, T. Onodera, T. Hayashi, N. Ikeda, Y. Sugimoto, T. Takamasu, H. Oikawa</p> <p>Tu.B4.5 Coupled micro-ring resonator based optical en/decoder for 2-D coherent OCDMA application X. Wang, Z. Gao</p>
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12:30 – 14:00 **Lunch break** 12:55 – 14:00 **Lunch break** 12:40 – 14:00 **Lunch break** 12:20 – 14:00 **Lunch break**

<p>SESSION Tu.C1 (14:00 – 15:45) Plenary hall SARDANA-BONE III <i>Chair: Michela Svaluto Moreolo</i></p> <p>Tu.C1.1 Next generation access networks: CDMA- vs. WDMA-based PONs (<i>Invited</i>) G. Cincotti, N. Wada, N. Kataoka, K-I. Kitayama</p> <p>Tu.C1.2 Full-duplex, 10 Gbps, asynchronous OCDMA system (<i>Invited</i>) N. Kataoka</p> <p>Tu.C1.3 Optical CDMA enhanced by nonlinear optics (<i>Invited</i>) C. Ware, S. Cordette, C. Lepers, I. Fsaïfes, A. Tonello, V. Couderc, M. Douay, B. Kibler, C. Finot, G. Millot</p>	<p>(14:00 – 16:00) Auditorium A COST Action MP0702 Management Committee Meeting <i>Chair: Marian Marciniak</i></p> <p><i>Attendance by invitation only</i></p>	<p>SESSION Tu.C3 (14:00 – 15:45) Auditorium B RONEXT II <i>Chair: Richard Dorward</i></p> <p>Tu.C3.1 A novel service-oriented resource allocation model for future optical internet (<i>Invited</i>) C.E. Abosi, R. Nejabati, D. Simeonidou</p> <p>Tu.C3.2 Cross-layer communications for high-bandwidth optical networks (<i>Invited</i>) C.P. Lai, K. Bergman</p> <p>Tu.C3.3 Design and analysis of protocols for QoS and autonomous recovery in GMPLS controlled IP over WDM networks (<i>Invited</i>) R. Ghimire, S. Mohan</p>	<p>SESSION Tu.C4 (14:00 – 15:45) “Einsäulen” hall MPM III <i>Chair: Koby Scheuer</i></p> <p>Tu.C4.1 Photonic atoms and molecules: Sensing, trapping and all-optical manipulation (<i>Invited</i>) F. Vollmer</p> <p>Tu.C4.2 Optical interference: Nanoscale biological imaging, label-free protein microarrays, and single pathogen detection (<i>Invited</i>) M.S. Ünlü, M. Chiari, U. Rant</p> <p>Tu.C4.3 Light focusing microprobes for biomedical and photonics applications based on integrated microsphere arrays (<i>Invited</i>) A. Darafsheh, O.V. Svitelskiy, V.N. Astratov</p>
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Tu.C1.4 15:00	Performance enhancement of 2-D OCDMA systems using multi-code modulation and heterodyne detection <i>N.T. Dang, A.T. Pham</i>	Tu.C3.4 15:00	Investigation on fast MPLS restoration technique for a GbE wide area transport network: A disaster recovery case <i>M. Lucci, A. Valenti, F. Matera, D. Del Buono</i>	Tu.C4.4 15:00	Controlling the properties of photonic jets <i>D. McCloskey, Y.P. Rakovich, J.F. Donegan</i>
Tu.C1.5 15:15	Fixed mobile convergence in an all-optical metro network <i>C. Roger, P. Niger</i>	Tu.C3.5 15:15	Quality-based survivability in dual-failure network <i>J.S. Li, C.F. Yang</i>	Tu.C4.5 15:15	Effect of the slot position on the response of slot microresonators: Numerical investigation <i>K.R. Hiremath</i>
Tu.C1.6 15:30	Generation and transmission of millimeter wave signals employing optical frequency quadrupling <i>P. Laurêncio, H. Vargues, R. Avó, M.C.R. Medeiros</i>	Tu.C3.6 15:30	Reliable and fast restoration for a survivable wireless-optical broadband access network <i>B. Kantarci, H.T. Mouftah</i>	Tu.C4.6 15:30	Phase space engineering in optical microcavities: I. Preserving near-field uniformity while inducing far-field directionality <i>G. Painchaud-April, J. Poirier, D. Gagnon, L.J. Dubé</i>

15:45 – 16:15 **Coffee break** 16:00 – 16:30 **Coffee break** 15:45 – 16:15 **Coffee break** 15:45 – 16:15 **Coffee break**

SESSION Tu.D1 (16:15 – 18:10) Plenary hall ICTON IV – Systems II <i>Chair: Slavisa Aleksic</i>		SESSION Tu.D2 (16:30 – 18:10) Auditorium A SWP VI (WG3) <i>Chair: Romuald Brazis</i>		SESSION Tu.D3 (16:15 – 17:50) Auditorium B RONEXT III <i>Chair: Andrea Fumagalli</i>		SESSION Tu.D4 (16:15 – 18:10) “Einsäulen” hall ESPC I <i>Chair: Ady Arie</i>	
Tu.D1.1 16:15	ICT BONE views on the network of the future: The role of optical networking (<i>Invited</i>) <i>C. Politi, A. Tzanakaki, M. O’Mahony, K. Katrinis, P. Van Daele, M. Pickavet, D. Simeonidou, A. Stavdas, G. Franz, J. Mitchell, P. Castoldi, S. Spadaro, F. Callegatti, P. Petropoulos, K. Vlachos, A. Pattavina</i>	Tu.D2.1 16:30	Optical induced current technique used to investigate the photonic quantum ring laser (<i>Invited</i>) <i>G.A. Stanciu, R. Hristu, S.G. Stanciu</i>	Tu.D3.1 16:15	Trading power savings for blocking probability in dynamically provisioned WDM networks (<i>Invited</i>) <i>P. Monti, P. Wiatr, A. Jirattigalachote, L. Wosinska</i>	Tu.D4.1 16:15	Evaluation of 3D photonic crystal cavities on a volumetric basis (<i>Invited</i>) <i>K. Aoki</i>
Tu.D1.2 16:35	Advances on optical transport technologies in the BONE project (<i>Invited</i>) <i>F. Callegati, W. Ceroni</i>	Tu.D2.2 16:50	Spectral tuning of microstructured optical fibre Bragg gratings utilizing ferrofluids (<i>Invited</i>) <i>A. Candiani, M. Konstantaki, W. Margulis, S. Pissidakis</i>	Tu.D3.2 16:35	Energy efficient approach for survivable WDM optical networks (<i>Invited</i>) <i>L. Wosinska, A. Jirattigalachote, P. Monti, A. Tzanakaki, K. Katrinis</i>	Tu.D4.2 16:35	Hollow-core photonic crystal fibers: Advances and prospects (<i>Invited</i>) <i>F. Gérôme, G. Humbert, J-L. Auguste, R. Jamier, J-M. Blondy, W. Wadsworth, J. Knight</i>
Tu.D1.3 16:55	Design considerations and performance comparison of high-order modulation formats using OFDM (<i>Invited</i>) <i>W. Rosenkranz, A. Ali, J. Leibrich</i>	Tu.D2.3 17:10	Applications of highly nonlinear dispersion tailored lead silicate fibres for high speed optical communications (<i>Invited</i>) <i>F. Parmigiani, A. Camerlingo, X. Feng, F. Poletti, G.M. Ponzio, R. Slavik, P. Horak, M.N. Petrovich, W.H. Loh, P. Petropoulos, D.J. Richardson</i>	Tu.D3.3 16:55	Beyond dual homing: Benefits from multi-layer networking (<i>Invited</i>) <i>D.A. Schupke, E. Palkopoulou, T. Bauschert</i>	Tu.D4.3 16:55	Hybrid active photonic crystal structures: III-V based slow light waveguides or nanocavities coupled to SOI wires (<i>Invited</i>) <i>F. Raineri, Y. Halioua, T. Karle, A. Bazin, F. Bordas, P. Monnier, I. Sagnes, G. Roelkens, D. Van Thourhout, R. Raj</i>
Tu.D1.4 17:15	Single- and multi-carrier techniques to build up Tb/s per channel transmission systems (<i>Invited</i>) <i>R. Freund, M. Nölle, C. Schmidt-Langhorst, R. Ludwig, C. Schubert, G. Bosco, A. Carena, P. Poggiolini, L. Oxenløwe, M. Galili, H.C. Hansen Mulvad, M. Winter, D. Hillerkuss, R. Schmogrow, W. Freude, J. Leuthold, A.D. Ellis, F.C.G. Gunning, J. Zhao, P. Frascella, S.K. Ibrahim, N. Mac Suibhne</i>	Tu.D2.4 17:30	Towards all-diamond optical devices (<i>Invited</i>) <i>S. Tomljenovic-Hanic, I. Aharonovich, S. Castelleto, B.A. Fairchild, K. Ganesan, B.C. Gibson, A.D. Greentree, J. Orwa, S. Rubanov, D.A. Simpson, A. Stacey, S. Praver</i>	Tu.D3.4 17:15	Deciphering omnipresent Ethernet: An all Ethernet communication system – The control plane (<i>Invited</i>) <i>A. Gumaste</i>	Tu.D4.4 17:15	3D light harnessing based on coupling engineering between 1D-2D photonic crystal membranes and 0D photonic structures (<i>Invited</i>) <i>A. Belarouci, T. Benyattou, X. Letartre, P. Rojo-Romeo, T. Zhang, P. Viktorovitch</i>
Tu.D1.5 17:35	Gigabit home networking with 1 mm PMMA fibers (<i>Invited</i>) <i>S. Abrate, A. Nespolo, S. Straullu, P. Savio, R. Gaudino, A. Antonino, C. Zerna, B. Offenbeck, N. Weber</i>	Tu.D2.5 17:50	Predictive microscopic approach to transport and optics in THz quantum cascade lasers (<i>Invited</i>) <i>M.F. Pereira</i>	Tu.D3.5 17:35	Increasing the cost-constrained availability of WDM networks with degree-3 structured topologies <i>J.M. Gutierrez, K. Katrinis, K. Georgakilas, A. Tzanakaki, O.B. Madsen</i>	Tu.D4.5 17:35	1-D nanobeam resonators and lasers (<i>Invited</i>) <i>B-H. Ahn, J-H. Kang, M-K. Kim, B. Min, Y-H. Lee</i>
Tu.D1.6 17:55	Performance analysis of an OCDMA system by means of the quasi analytical and the Gaussian approaches <i>L. Piazza, V. Eramo, A. Aceto</i>					Tu.D4.6 17:55	Experimental evidences of light beam filtering by three-dimensional photonic crystal (<i>Invited</i>) <i>T. Gertus, L. Maigyte, M. Peckus, V. Sirutkaitis, K. Stalianas</i>

SESSION Tu.P (Poster II – SWP) 14:00 – 16:00

Tu.P.1	Photoluminescence of ZnO thin films on Si substrate <i>K. Bartkiewicz, Z. Lukasiak, A. Zawadzka, P. Pióciennik, A. Korcala</i>
Tu.P.2	Effective third-order optical nonlinearity of nano-porous silicon <i>T. Bazaru, V.I. Vlad, A. Petris, M. Miu</i>
Tu.P.3	Plasmon and structure resonances in the scattering of light by a periodic chain of silver nanocylinders <i>V.O. Byelobrov, T.M. Benson, J. Ctyroky, R. Sauleau, A.I. Nosich</i>
Tu.P.4	Optical limiting in polystyrene embedded nanocrystals <i>I. Dancus, V.I. Vlad, A. Petris, V. Lesnyak, N. Gaponik, A. Eychmüller</i>
Tu.P.5	Reflectometry sounding of inhomogeneities in periodic multilayer structures <i>M.M. Barisheva, K.P. Gaikovich, P.K. Gaikovich, M.N. Polushkin, Yu.A. Vainer, S.Yu. Zuev</i>
Tu.P.6	Photonic nanostructures for potential applications in cell biology <i>J. Heitz, N. Voelcker, A. Chaloupka, S. Yakunin, A.L. Hook, E. Anglin</i>

- Tu.P.7** Light propagation characteristics in subwavelength metal-dielectric optical coaxial nano-waveguides
O.N. Kozina, L.A. Melnikov, I.S. Nefedov
- Tu.P.8** Plasmon and grid resonances in the electromagnetic scattering by finite grids of silver nanowires
D.M. Natarov, T.M. Benson, A. Altintas, R. Sauleau, A.I. Nosich
- Tu.P.9** Tuning of resonator by control of nematic liquid crystal properties
M. Kukhtin, Y. Machekhin, E. Chernyakov, A. Nerukh, L. Lisetski, A. Cocherzhin
- Tu.P.10** Stimulated emission of radiation at 2.5 μm wavelength at room temperature from optically excited $\text{Cd}_x\text{Hg}_{1-x}\text{Te}$ structures
A.A. Andronov, Yu.N. Nozdrin, A.V. Okomel'kov
- Tu.P.11** Photoinduced molecular polar alignment in E-O polymers by all-optical poling holographic methods
R. Petruskevicius, L. Kucinskaite, G. Navickaite, G. Seniutinas, R. Tomasiunas
- Tu.P.12** Soliton waveguide arrays in LiNbO_3 generated with blue-violet lasers for ultrafast parallel coupling
S.T. Popescu, A. Petris, V.I. Vlad, E. Fazio
- Tu.P.13** Broadband terahertz modulation using subwavelength metallic slit arrays
S. Zarei, M. Jarrahi
- Tu.P.14** H-wave scattering by a flat magneto-dielectric strip analyzed with the Nystrom-type numerical algorithm
O.V. Shapoval, R. Sauleau, A.I. Nosich
- Tu.P.15** Investigations of temperature dependent photoluminescence process in MgO thin films
A. Zawadzka, P. Płóciennik, K. Brodzińska, Z. Łukasiak, K. Bartkiewicz, A. Korcala
- Tu.P.16** Simulation and fabrication of a new photonic biosensor
C. Ciminelli, C.M. Campanella, M.N. Armenise

19:00 **Bavarian banquet dinner will be held at Augustinerkeller**

Wednesday, June 30

SESSION We.A1 (8:30 – 10:30) Plenary hall ICTON V – Networks I Chair: Paulo André	SESSION We.A2 (8:30 – 10:30) SWP VII (WG2) Auditorium A Chair: Katia Gallo	SESSION We.A3 (8:30 – 10:25) Auditorium B GOWN I Chair: Prince Anandarajah	SESSION We.A4 (8:30 – 10:45) “Einsäulen” hall Industrial Chair: Karin Ennser
We.A1.1 8:30 Optimizing multi-layered networks towards a transparently optical Internet (<i>Invited</i>) R.G. Addie, D. Fatseas, M. Zukerman	We.A2.1 8:30 Nonlinear optics at the nanoscale (<i>Invited</i>) C. Sibilía, M. Centini, A. Benedetti	We.A3.1 8:30 The impact of receiver sensitivity in the convergence of diverse services over future integrated optical access networks (<i>Invited</i>) C.P. Tsekrekos, T. Papachristos, I. Tomkos	We.A4.1 8:30 A novel all-optical system of the chaotic encryption for optical networks (<i>Invited</i>) Y. Ben-Ezra, B.I. Lembrikov, Yu. Yurchenko
We.A1.2 8:50 Requirements and limitations of optical interconnects for high-capacity network elements (<i>Invited</i>) S. Aleksić, N. Fehratović	We.A2.2 8:50 Enhanced Raman amplification by hybrid photonic crystals (<i>Invited</i>) A. Seyedfaraji, V. Ahmadi	We.A3.2 8:50 Signal processing techniques for transmission impairments compensation in optical systems (<i>Invited</i>) J.M.B. Oliveira, L.M. Pessoa, H.M. Salgado, I. Darwazeh	We.A4.2 8:50 Monitoring of the transparent fibre infrastructure for FTTx networks: An operator's view (<i>Invited</i>) A. Ehrhardt, H-M. Foisel, F. Escher, A. Templin, M. Adamy
We.A1.3 9:10 Converged optical networking for packetized bandwidth delivery (<i>Invited</i>) M. Cvijetic	We.A2.3 9:10 Exact transparent boundary condition for beam propagation in rectangular domain (<i>Invited</i>) R.M. Feshchenko, A.V. Popov	We.A3.3 9:10 Optical technologies for multi-Gbit/s ultra-wideband radio: From the access to the picocell (<i>Invited</i>) R. Llorente, M. Morant, M. Beltran	We.A4.3 9:10 Optical OFDM for the data center (<i>Invited</i>) Y. Benlachtar, R. Bouziane, R.I. Killey, C.R. Berger, P. Milder, R. Koutsoyannis, J.C. Hoe, M. Püschel, M. Glick
We.A1.4 9:30 GMPLS energy efficiency scheme for Green photonic networks (<i>Invited</i>) M. Nazri, M. Warip, I. Glesk, I. Andonovic	We.A2.4 9:30 Silica aerogel in optical fibre devices (<i>Invited</i>) T.A. Birks, M.D.W. Grogan, L.M. Xiao, M.D. Rollings, R. England, W.J. Wadsworth	We.A3.4 9:30 60 GHz radio-over-fiber transmission impairments for broadband wireless signals (<i>Invited</i>) R. Avó, P. Laurêncio, M.C.R. Medeiros	We.A4.4 9:30 Impact of topology on layer 2 switched QoS sensitive services (<i>Invited</i>) B. Puype, G. Verbanck, J. Michielsen, M. Moeskops, W. Tavernier, D. Colle, M. Pickavet, P. Demeester
We.A1.5 9:50 Optical transparency and network energy efficiency (<i>Invited</i>) D.C. Kilper, G. Atkinson, S. Korotky	We.A2.5 9:50 Plasmonic absorption enhancement in organic photovoltaics (<i>Invited</i>) B. Maes, A. Abass, H. Shen, P. Bienstman	We.A3.5 9:50 On supporting multiple radio channels over a SCM-based distributed antenna system: A feasibility assessment (<i>Invited</i>) S. Pato, F. Ferreira, P. Monteiro, H. Silva	We.A4.5 9:50 Open access networks, the Swedish experience (<i>Invited</i>) M. Forzati, C. Popp Larsen, C. Mattsson
We.A1.6 10:10 Physical layer cryptography in optical networks: A lattice-based approach (<i>Invited</i>) N. Boudriga, W. Abdallah, M. Hamdi	We.A2.6 10:10 Holographic photonic structures generated in dichromated pullulan (<i>Invited</i>) S. Savić-Sević, D. Pantelić, B. Jelenković	We.A3.6 10:10 Transparent transportation of digitized microwave environments over 10 Gbps optical networks: Transportation of multi-channel digital broadcast signals Y. Shoji, Y. Takayama, M. Toyoshima, H. Ohta	We.A4.6 10:10 An energy-efficient node interface for optical core networks C. Dorize, A. Morea, O. Rival, B. Berde
			We.A4.7 10:25 Standardization in optical access networks: Status and possible directions (<i>Invited</i>) A. Teixeira

10:30 – 11:00 **Coffee break**

10:30 – 11:00 **Coffee break**

10:25 – 11:00 **Coffee break**

10:45 – 11:15 **Coffee break**

SESSION We.B1 (11:00 – 12:55) Plenary hall ICTON VI – General II Chair: Moshe Zukerman	SESSION We.B2 (11:00 – 12:35) Auditorium A SWP VIII (WG3) Chair: George Stanciu	SESSION We.B3 (11:00 – 12:55) Auditorium B GOWN II Chair: Carmo Medeiros	SESSION We.B4 (11:15 – 12:55) “Einsäulen” hall Glasses I Chair: Reinhard Caspary
We.B1.1 11:00 Squat-based resource management strategy for enabling shared infrastructures over optical networks (<i>Invited</i>) J.A. Garcia-Espin, X. Hesselbach	We.B2.1 11:00 Second and third harmonic generation in disordered quadratic nonlinear media: Application to short-pulse characterization (<i>Invited</i>) V. Roppo, W. Wang, K. Kalinowski, R. Vilaseca, J. Trull, C. Cojocar, K. Staliunas, W. Krolikowski, Yu. Kivshar	We.B3.1 11:00 Gain switching for the optical generation of modulated millimeter waves (<i>Invited</i>) P.M. Anandarajah, H. Shams, P. Perry, L.P. Barry	We.B4.1 11:15 The optical properties of chalcogenide glasses: From measurement to electromagnetic simulation tools (<i>Invited</i>) H.G. Dantanarayana, A. Vukovic, P. Sewell, Z.G. Lian, D. Furniss, A.B. Seddon, E.A. Romanova, A. Konyukhov, B. Derkowska, J. Orava, T. Wagner, T.M. Benson

We.B1.2 Algorithms for virtual topology reconfiguration under multi-hour traffic using Lagrangian relaxation and tabu search approaches (<i>Invited</i>) <i>R. Aparicio-Pardo, P. Pavon-Marino, N. Skorin-Kapov, B. Garcia-Manrubia, J. Garcia-Haro</i>	We.B2.2 Second-harmonic generation in disordered quadratic media: Role of a ferroelectric domain structure (<i>Invited</i>) <i>V. Roppo, K. Kalinowski, W. Wang, C. Cojocar, J. Trull, R. Vilaseca, M. Scalora, W. Krolikowski, Yu. Kivshar</i>	We.B3.2 Figures of merit for microwave photonic phase shifters based on coherent population oscillation slow and fast light effects (<i>Invited</i>) <i>I. Gasulla, J. Sancho, J. Lloret, S. Sales, J. Capmany</i>	We.B4.2 Thermal diffusion in chalcogenide glass irradiated by a train of femtosecond laser pulses (<i>Invited</i>) <i>E. Romanova, A. Konyukhov, S. Muraviov, A. Andrianov</i>
We.B1.3 Multiobjective sparse regeneration placement algorithm in optical networks considering network performance and CAPEX (<i>Invited</i>) <i>D.A.R. Chaves, C.F.C.L.C. Ayres, R.V.B. Carvalho, H.A. Pereira, C.J.A. Bastos-Filho, J.F. Martins-Filho</i>	We.B2.3 Nonlinear optical properties of azo-azulenes derivatives (<i>Invited</i>) <i>J. Niziol, Z. Essaidi, H. El Ouazzani, M. Bakasse, B. Sahaoui</i>	We.B3.3 Microwave signal processing based on ultrafast dynamics in quantum dot waveguides (<i>Invited</i>) <i>Y. Chen, J. Mørk</i>	We.B4.3 First-time microwave-synthesis of As ₄₀ Se ₆₀ chalcogenide glass: With potential for mid-infrared photonics (<i>Invited</i>) <i>N. Prasad, A.B. Seddon</i>
We.B1.4 Investigation of duobinary modulation implementations for use in wavelength switched networks (<i>Invited</i>) <i>J.A. O'Dowd, S.K. Ibrahim, V. Bessler, A.D. Ellis</i>	We.B2.4 Photopolymer recording materials: Characterisation, modelling and applications (<i>Invited</i>) <i>J.T. Sheridan</i>	We.B3.4 Theoretical and experimental study of the linearity of semiconductor optical amplifier based optical modulator in subcarrier multiplexed systems (<i>Invited</i>) <i>E. Udvary, T. Berceci</i>	We.B4.4 Elaboration of photonic crystal fibers for telecom and mid infrared wavelengths (<i>Invited</i>) <i>J. Troles, J.L. Adam, L. Brilland, Q. Coulombier, T. Chartier</i>
We.B1.5 De-multiplexing of 107 Gb/s OTDM signal based on pulsed pump optical parametric amplifier <i>M. Karasek, P. Honzatko</i>	We.B2.5 Influence of intra-ensemble energy transfer on the properties of nanocrystal quantum dot structures and devices <i>M. Lunz, A.L. Bradley, W-Y. Chen, V.A. Gerard, S.J. Byrne, Y.K. Gun'ko, V. Lesnyak, N. Gaponik</i>	We.B3.5 Photonic and microwave signal processing by means of slow and fast light (<i>Invited</i>) <i>M. Santagiustina, C.G. Someda</i>	We.B4.5 Study of nonlinear optical properties of Er ³⁺ - and Yb ³⁺ -doped oxyfluoride glasses (<i>Invited</i>) <i>B. Derkowska, Y.L. Wong, D. Furniss, T.M. Benson, A.B. Seddon</i>
We.B1.6 Power consumption in photonic switches with shared wavelength converters <i>C. Raffaelli, M. Savi</i>	We.B2.6 Investigation of selected polymers with different azobenzene moieties for NLO application (<i>Invited</i>) <i>O. Krupka, O. Nadtoka, V. Smokal, H. El Ouazzani, B. Sahaoui</i>	We.B3.6 Peer-to-peer architectures for converged wired/wireless access networks <i>G. Puerto, J. Mora, B. Ortega, J. Capmany</i>	

12:55 – 14:00 **Lunch break** 12:35 – 14:00 **Lunch break** 12:55 – 14:00 **Lunch break** 12:55 – 14:00 **Lunch break**

SESSION We.C1 (14:00 – 15:55) Plenary hall ICTON VII – Networks II <i>Chair: Hovik Baghdasaryan</i>	SESSION We.C2 (14:00 – 16:15) Auditorium A SWP IX <i>Chair: Valentin Vlad</i>	SESSION We.C3 (14:00 – 16:10) Auditorium B CAS I <i>Chair: Vladimir Rastorguev</i>	SESSION We.C4 (14:00 – 15:30) "Einsäulen" hall Glasses II <i>Chair: Angela Seddon</i>
We.C1.1 New challenges in next generation dynamic optical network planning (<i>Invited</i>) <i>I. Tomkos</i>	We.C2.1 Glass-ceramic waveguides: Fabrication and properties (<i>Invited</i>) <i>S. Guddala, G. Alombert-Goget, C. Armellini, A. Chiappini, A. Chiasera, M. Ferrari, M. Mazzola, S. Berneschi, G.C. Righini, E. Moser, B. Boulard, C. Duverger Arfuso, S.N.B. Bhaktha, S. Turrell, D. Narayana Rao, G. Speranza</i>	We.C3.1 Communication in automotive systems: Principles, limits and new trends for vehicles, airplanes and vessels (<i>Invited</i>) <i>O. Strobel, R. Rejeb, J. Lubkoll</i>	We.C4.1 Fabrication of tellurite fiber devices using laser irradiation techniques for all-optical switching applications (<i>Invited</i>) <i>H. Yokota, Y. Imai, Y. Sasaki, A. Mori</i>
We.C1.2 Adaptive optical transmission for dynamic optical networks (<i>Invited</i>) <i>B. Teipen, K. Grobe, M. Eiselt, J-P. Elbers</i>	We.C2.2 Parametric frequency downconversion devices in periodically poled Mg-doped stoichiometric lithium tantalate (<i>Invited</i>) <i>K. Gallo, M. Levenius, B. Vermersch, V. Pasiskievicius, F. Laurell</i>	We.C3.2 Optical wireless with application in automobiles (<i>Invited</i>) <i>R.J. Green</i>	We.C4.2 Tellurite glasses rare-earth doped optical fiber devices: Recent progress and prospects (<i>Invited</i>) <i>J. Lousteau, D. Milanese, S. Abrate, N. Boetti, M. Pittarelli, S. Barbero, M. Ferrari</i>
We.C1.3 Cognitive optical networks: Need, requirements and architecture (<i>Invited</i>) <i>G.S. Zervas, D. Simeonidou</i>	We.C2.3 Inverse scattering problem in Hilbert space (<i>Invited</i>) <i>K.P. Gaikovich</i>	We.C3.3 Matrix model of optical power propagation in plastic optical fibres (<i>Invited</i>) <i>A. Losada, J. Mateo, A. López</i>	We.C4.3 Large core fluoride fibers (<i>Invited</i>) <i>M. Waldmann, S. Schütz, R. Caspary, W. Kowalsky</i>
We.C1.4 Driving the optical network innovation by extensively using transparent domains (<i>Invited</i>) <i>H.R. van As</i>	We.C2.4 Multipolar contributions to the second-order nonlinearity of gold (<i>Invited</i>) <i>M. Kauranen, F. Xiang Wang, F. Rodriguez, J.E. Sipe, W.M. Albers, R. Ahorinta</i>	We.C3.4 Application of advanced communication techniques within KDPOF physical layer, to achieve a robust and low-cost MOST100 (<i>Invited</i>) <i>C. Pardo</i>	We.C4.4 Pulsed laser deposition of phospho-tellurite glass thin film waveguides <i>M. Irannejad, G. Jose, A. Jha, P. Steenson</i>
We.C1.5 Modulation format free optical packet switching technology (<i>Invited</i>) <i>N. Wada S, Shinada, H. Furukawa</i>	We.C2.5 Optical rogue waves and soliton collisions (<i>Invited</i>) <i>M. Erkintalo, G. Genty, J.Dudley</i>	We.C3.5 Gigabit Ethernet transmission over polymer optical fiber (<i>Invited</i>) <i>S. Randel</i>	We.C4.5 Erbium-doped fluoride glass waveguides for laser applications <i>S. Schütz, M. Waldmann, R. Caspary, W. Kowalsky</i>
We.C1.6 Optimized methods for inserting and deleting records and data retrieving in quantum database <i>A. Gueddana, R. Chatta, N. Boudriga</i>	We.C2.6 Material nanoprocessing with nondiffracting femtosecond Bessel beams (<i>Invited</i>) <i>F. Courvoisier, M.K. Bhuyan, P-A. Lacourt, M. Jacquot, L. Furfaro, J.M. Dudley</i>	We.C3.6 150 Mbit/s MOST, the next generation automotive infotainment system (<i>Invited</i>) <i>S. Poferl, M. Becht, P. De Pauw</i>	
	We.C2.7 Static and dynamic structural monitoring based on optical fiber sensors <i>P. Antunes, H. Lima, H. Varum, P. André</i>		

15:55 – 16:15 **Coffee break** 16:15 – 16:40 **Coffee break** 16:10 – 16:40 **Coffee break** 15:30 – 16:00 **Coffee break**

SESSION We.D1 (16:15 – 18:10) Plenary hall ICTON VIII – Systems III Chair: Xavier Hesselbach	SESSION We.D2 (16:40 – 18:10) Auditorium A ESPC II Chair: Kanna Aoki	SESSION We.D3 (16:40 – 17:55) Auditorium B CAS II Chair: Otto Strobel	SESSION We.D4 (16:00 – 18:15) “Einsäulen” hall NAONI Chair: Wlodek Nakwaski
We.D1.1 Vector modulation technologies for high-speed optical transmission (<i>Invited</i>) T. Kawanishi, T. Sakamoto, A. Chiba, A. Kanno	We.D2.1 All-optical effects in nonlinear photonic crystals (<i>Invited</i>) A.G. Padowicz, I. Dolev, T. Ellenbogen, Y. Sheng, K. Koynov, A. Arie	We.D3.1 Radiometric sensor of movement speed of vehicles (<i>Invited</i>) V.V. Rastorguev, V.B. Shnajder	We.D4.1 Linear and nonlinear semiconductor optical amplifiers (<i>Invited</i>) W. Freude, R. Bonk, T. Vallaitis, A. Marculescu, A. Kapoor, E.K. Sharma, C. Meuer, D. Bimberg, R. Brenot, F. Lelarge, G-H. Duan, C. Koos, J. Leuthold
We.D1.2 DSP-based compensation of non-linear impairments in 100 Gb/s PolMux QPSK (<i>Invited</i>) M. Mussolin, M. Forzati, J. Mårtensson, A. Carena, G. Bosco	We.D2.2 Dynamic nonlinear optics in 2D photonic crystals (<i>Invited</i>) A.M. Yacomotti, M. Brunstein, A. Levenson	We.D3.2 Double conversion heterodyne photoparametric amplifier (<i>Invited</i>) R.J. Green, H. Alhaghagi, E.L. Hines	We.D4.2 Four-wave mixing in 1.3 μm quantum dot semiconductor optical amplifiers (<i>Invited</i>) D. Bimberg, C. Meuer, G. Fiol, H. Schmeckebeier, D. Arsenijevic
We.D1.3 Iterative demapping and decoding for bit-interleaved coded modulation in optical communication systems (<i>Invited</i>) T. Lotz, W. Sauer-Greff, R. Urbansky	We.D2.3 High-power supercontinuum generation with picosecond pulses (<i>Invited</i>) P. Horak, K.K. Chen, S. Alam, S. Dasgupta, D.J. Richardson	We.D3.3 Fuzzy linear programming for capacity planning in optical networks (<i>Invited</i>) Y.S. Kavian, R. Rejeb, O. Strobel	We.D4.3 Modelocked and tunable InAs/InP (100) quantum dot lasers in the 1.5 μm to 1.8 μm region (<i>Invited</i>) E. Bente, S. Tahvili, B. Tilma, J. Kotani, M. Smit, R. Nötzel
We.D1.4 Impact of optical channel distortions to digital timing recovery in digital coherent transmission systems F.N. Hauske, N. Stojanovic, C. Xie, M. Chen	We.D2.4 3D modelling of 2D guided-wave photonic crystals C. Ciminelli, R. Marani, M.N. Armenise	We.D3.4 Using 4G wireless technology in the car J. Mosyagin	We.D4.4 Two-state passive mode-locking of quantum dot semiconductor lasers: Classical state scenario and novel reverse state dynamics (<i>Invited</i>) S. Breuer, M. Rossetti, W. Elsässer, L. Drzewietzki, P. Bardella, I. Montrosset, M. Krakowski, M. Hopkinson
We.D1.5 Rate-adaptive nonbinary-LDPC-coded modulation with backpropagation for long-haul optical transport networks M. Arabaci, I.B. Djordjevic, T. Schmidt, R. Saunders, R.M. Maccoccia	We.D2.5 One-dimensional photonic crystal with superconducting defect layer: Oblique incidence of the light N. Dadoenkova, A. Zabolotin, I. Lyubchanskii, Y.P. Lee, T. Rasing		We.D4.5 Integrated tunable laser with ns-switching speed using filtered feedback (<i>Invited</i>) J. Pozo, B. Docter, O. Raz, N. Calabretta, S. Beri, I.V. Ermakov, J. Danckaert, M.K. Smit
We.D1.6 Impact of nonlinear fibre impairments in 112 Gb/s PM-QPSK transmission with 43 Gb/s and 10.7 Gb/s neighbours D. Rafique, M. Forzati, J. Mårtensson			We.D4.6 Timing jitter and all-optical clock recovery based on a quantum-dash Fabry-Perot semiconductor laser (<i>Invited</i>) J. Parra-Cetina, S. Latkowski, R. Maldonado-Basilio, P. Landais
We.D1.7 Stable 112-Gb/s POLMUX-DQPSK transmission with automatic polarization tracker J. Zhang, X. Yuan, M. Lin, J. Tao, Y. Zhang, M. Zhang, X. Zhang			We.D4.7 Characterization of a multi-electrode bulk-SOA for low NF in-line amplification in passive optical networks K. Carney, S. Latkowski, R. Maldonado-Basilio, P. Landais, R. Lennox, A.L. Bradley

SESSION We.P (Poster III – ICTON, WAOR, RONEXT) 14:00 – 16:00

We.P.1 Dual-link failure covering in DWDM optical networks using genetic algorithms Y.S. Kavian, R. Rejeb, O. Strobel
We.P.2 Statically pre-provisioned priority-aware algorithm for shared-mesh optical networks A. Nafarieh, W. Phillips, B. Robertson, S. Sivakumar
We.P.3 Data replication schemes for a distributed storage scenario T.E.H. El-Gorashi, J.M.H. Elmighani
We.P.4 Virtual topology optimization for optical traffic grooming in OBS networks W. Abdallah, M. Hamdi, N. Boudriga
We.P.5 Blocking performance for all optical wavelength routed WDM networks under wavelength conversions F.E. El-Khamy, M. Nasr, H.M.H. Shalaby, H.T. Mouftah
We.P.6 Integration of optical telecommunications and radio access networks to assure quality of service M. Giuntini, J. Morabito, A. Valenti, F. Matera, V. Carrozzo, S. Di Bartolo
We.P.7 All-optical generation of quaternary amplitude-shift keying signals through parametric amplification M.L.F. Abbade, J.D. Marconi, A.L.A. Costa, F.R. Barbosa, E. Moschim, H.L. Fragnito
We.P.8 Impact of fibre four-wave mixing wavelength converters on the packet error rate of IP applications M.L.F. Abbade, J.D. Marconi, V. Ishizuca, R.L. Cassiolo, I.E. Fonseca, H.L. Fragnito
We.P.9 Coherent direct sequence optical en/decoding employing low cost DFB lasers with narrow optical band consumption: Towards realizable photonic label switching D. Pastor, W. Amaya, R. Garcia-Olcina
We.P.10 Investigation of multiple passes through a double-cell self-phase modulation based regenerator D. Bolt, K. Ennser
We.P.11 Pump depletion measurement under modulation instability conditions E. Duca, M. Giaconi, G. Parca
We.P.12 All-optical fiber-based amplitude jitter magnifier J. Fatome, C. Finot
We.P.13 Extreme statistics in Raman fiber amplifiers: From experiments to analytical description K. Hammani, C. Finot, J. Fatome, A. Picozzi, G. Millot
We.P.14 Adaptive PMD compensation based on DSP and CPLD platform in 80Gb/s DQPSK optical transmission system J. Tao, Y. Zhang, J. Zhang, X. Yuan, M. Zhang, X. Zhang
We.P.15 Transmission of 20x10 GE channels over 298 km of NZ DSF with EDFA assisted bi-directional Raman amplification M. Karasek, J. Vojtech, J. Radil
We.P.16 Multiple-bit all-optical logic based on cross-gain modulation in a semiconductor optical amplifier A. Villafranca, I. Garcés, M. Cabezón, J.J. Martínez, D. Izquierdo, J. Pozo

- We.P.17** 40Gb/s Pol-Mux RZ-DQPSK transmission with electric dispersion compensation
M. Lin, J. Zhang, Y. Zhang, M. Zhang, Y. Huang
- We.P.18** C+L band gain equalization for extended reach WDM-ring PON using hybrid Raman/in-line EDFA amplification
B. Neto, A.M. Rocha, J.P. Girão, R.P. Dionisio, C. Reis, S. Chatzi, F. Bonada, J. Lazaro, A. Teixeira, P.S. André
- We.P.19** Analysis of non-linear impairments in 40 Gbaud PM DQPSK and D8PSK transmission
M. Niaz Chughtai, M. Forzati, J. Mårtensson, E. Tipsuwannakul, M. Karlsson
- We.P.20** Configuration for detecting the fiber fuse propagation using a FBG sensor
A.M. Rocha, P. Antunes, F. Domingues, M. Facão, P.S. André
- We.P.21** The implementation of a novel electrical compensation scheme for adaptive PMD compensator
G. Wang, Y. Zhang, J. Zhang, M. Zhang, X. Yuan, L. Zhou, X. Weng, F. Tian, X. Zhang
- We.P.22** Modeling of the multi-carrier modulation benefits for data transmission
M. Lucki, P. Jares, E. Kozłowska
- We.P.23** An ameliorated parallel prefix network algorithm based DQPSK precoder for optical communication
L. Zhou, Y. Zhang, G. Wang, M. Zhang, J. Zhang, Y. Huang, L. Li
- We.P.24** Which of the shortest paths should we choose? A proposal of routing in the all-optical WDM networks design
G.M. Durães, K.D.R. Assis, A.F. Santos, A.C.B. Soares, W.F. Giozza
- We.P.25** Channel assignment in dense wavelength division multiplexing radio-over-fiber networks
M. Klinkowski, M. Jaworski, D. Careglio
- We.P.26** Optical transmission impairments in 60 GHz radio-over-fiber system
M. Jaworski, M. Klinkowski
- We.P.27** Enhanced fibre length reach in low-BW RSOA 10 Gb/s colourless WDM PON using CS-MLSE
I. Cano, M. Omella, J. Prat, P. Poggiolini

18:30 **Barbecue party on Technische Universität München campus**

Thursday, July 1

SESSION Th.A1 (8:30 – 10:25) Plenary hall ICTON IX – Systems IV <i>Chair: Oscar Gaete</i>	SESSION Th.A2 (8:30 – 10:10) Auditorium A SARDANA-BONE IV <i>Chair: Gabriella Cincotti</i>	SESSION Th.A3 (8:30 – 10:30) Auditorium B OMEGA Tutorial <i>Chair: Klaus-Dieter Langer</i>	SESSION Th.A4 (8:30 – 10:30) “Einsäulen” hall NAON II <i>Chair: Phillip Sewell</i>
Th.A1.1 8:30 Power consumption comparison between point-to-point WDM and OTDM systems (<i>Invited</i>) <i>J. Xu, C. Peucheret, P. Jeppesen</i>	Th.A2.1 8:30 Optical code division multiple access coder/decoder pairs based on temporal optical pulse shaping with fiber Bragg gratings and electrooptic modulators (<i>Invited</i>) <i>S. Tainta, M.J. Erro, R. Garcia, W. Amaya, M.J. Garde, S. Sales, M.A. Muriel</i>	Th.A3.1 8:30 Indoor gigabit optical wireless communications: Challenges and possibilities (<i>Invited</i>) <i>H. Le Minh, Z. Ghassemlooy, D. O'Brien, G. Faulkner</i>	Th.A4.1 8:30 Wafer-fused 1310 nm and 1550 nm mode-locked semiconductor disk lasers (<i>Invited</i>) <i>A. Sirbu, E. Saarinen, J. Rautiainen, J. Puustinen, A. Mereuta, J. Lyytikäinen, L. Toikkanen, J. Nikkinen, A. Caliman, V. Iakovlev, O. Okhotnikov, E. Kapon</i>
Th.A1.2 8:50 Practical and deployment issues to be considered in regenerator placement and operation of translucent optical networks (<i>Invited</i>) <i>C.V. Saradhi, S. Zaks, R. Fedrizzi, A. Zanardi, E. Salvadori</i>	Th.A2.2 8:50 Original monitoring technique for passive optical networks combining fiber Bragg gratings and wavelength swept light source (<i>Invited</i>) <i>K. Yuksel, M. Wuilpart, V. Moeyaert, P. Mégret</i>	Th.A3.2 9:00 Video broadcast via a lamp (<i>Invited</i>) <i>J. Vučić, C. Kottke, L. Fernández, S. Nerreter, J. Walewski, K. Habel, K-D. Langer</i>	Th.A4.2 8:50 Direct writing of photonic devices using femtosecond laser pulses (<i>Invited</i>) <i>A. Fuerbach, S. Gross, C. Miese, G. Marshall, M. Ams, P. Dekker, M. Withford</i>
Th.A1.3 9:10 DPSK optical code hopping scheme using single phase modulator for secure optical communication (<i>Invited</i>) <i>X. Wang, Z. Gao, N. Kataoka, N. Wada</i>	Th.A2.3 9:10 Modelling optical burst equalisation in next generation access network <i>B. Cao, J.E. Mitchell</i>	Th.A3.3 9:30 Light-emitting diodes: The unknown entities (<i>Invited</i>) <i>T. Kamalakis, J.W. Walewski, G. Ntogari, G. Mileounis</i>	Th.A4.3 9:10 Photonic reservoir computing: A new approach to optical information processing (<i>Invited</i>) <i>K. Vandoorne, M. Fiers, D. Verstraeten, B. Schrauwen, J. Dambre, P. Bienstman</i>
Th.A1.4 9:25 Quadrature imbalance compensation techniques for DP-QPSK coherent systems <i>L.A. Pivato, D.A.A. Mello</i>	Th.A2.4 9:25 Bidirectional incoherent 16QAM transmission over hybrid WDM/TDM passive optical network <i>N. Sotiropoulos, T. Koonen, H. de Waardt</i>	Th.A3.4 10:00 Block transmission with linear frequency domain equalization for dispersive optical channels with direct detection (<i>Invited</i>) <i>M. Wolf, L. Grobe, M.R. Rieche, A. Koher, J. Vučić</i>	Th.A4.4 9:30 Ultrafast all-optical memory operation using a polarization bistable VCSEL (<i>Invited</i>) <i>H. Kawaguchi</i>
Th.A1.5 9:40 Fiber nonlinear impact on hybrid ultra-dense WDM based optical networks <i>J.D. Reis, P.M.A. Monteiro, A.L. Teixeira</i>	Th.A2.5 9:40 OFDM-UWB signal distribution over long-reach PON using directly modulated lasers <i>J.A.P. Morgado, A.V.T. Cartaxo</i>		Th.A4.5 9:50 Electron transfer between quasi-zero-dimensional nanostructures (<i>Invited</i>) <i>K. Král, M. Menšík</i>
Th.A1.6 9:55 Experimental comparison of all-optical phase-preserving amplitude regeneration techniques <i>D. Endres, C. Stephan, K. Sponsel, G. Onishchukov, B. Schmauss, G. Leuchs</i>	Th.A2.6 9:55 Baseband OFDM and ultrawide band OFDM signals coexistence requirements for extended reach PONs <i>F. Carvalho, A. Cartaxo</i>		Th.A4.6 10:10 Photonic crystal based structures for ultra-thin film solar cells (<i>Invited</i>) <i>E. Drouard, G. Gomard, X. Meng, O. El Daif, A. Kaminski-Cachopo, A. Fave, M. Lemiti, C. Seassal</i>
Th.A1.7 10:10 Determination of channel capacity and optimum source distribution of fiber-optic channel <i>J. Zhang, I.B. Djordjevic, H.G. Batshon, S.S. Jian</i>			
10:25 – 11:00 Coffee break			
SESSION Th.B1 (11:00 – 12:35) Plenary hall ICTON X – Modelling <i>Chair: Adolfo Cartaxo</i>	SESSION Th.B2 (10:50 – 12:20) Auditorium A MPM IV <i>Chair: Nataliya Sakhnenko</i>	SESSION Th.B3 (11:00 – 12:30) Auditorium B ICTON-FSO <i>Chair: Jelena Vučić</i>	SESSION Th.B4 (10:45 – 12:35) “Einsäulen” hall NAON III <i>Chair: Eugene Avrutin</i>
Th.B1.1 11:00 Self pulsing solitons: A base for optically controllable pulse trains in photonic networks? (<i>Invited</i>) <i>T. Ackemann, N. Radwell, C. McIntyre, G.L. Oppo, W.J. Firth</i>	Th.B2.1 10:50 High efficient optical pumping based on dynamical tunneling in a deformed microcavity laser (<i>Invited</i>) <i>K. An</i>	Th.B3.1 11:00 Analysis and evaluation of optimum wavelengths for free-space optical transceivers (<i>Invited</i>) <i>E. Leigtgeb, T. Plank, M.S. Awan, P. Brandl, W. Popoola, F. Ghassemlooy, F. Ozek, M. Wittig</i>	Th.B4.1 10:45 InP-based high-speed-VCSELs with novel short-cavity design for application in access networks (<i>Invited</i>) <i>M.C. Amann, M. Müller</i>

Th.B1.2 11:20	Optimization of W-type fiber in order to use it in bright soliton transmission (<i>Invited</i>) <i>T. Kaczmarek</i>	Th.B2.2 11:10	Controlling the interaction of photons and single molecules in a $N/2$ -microresonator (<i>Invited</i>) <i>R. Gutbrod, S. Bär, A. Chizhik, F. Schleifenbaum, A. Chizhik, A.J. Meixner</i>	Th.B3.2 11:20	Multi-wavelength wireless-PON (<i>Invited</i>) <i>M. Milosavljevic, A. Gliwan, P. Kourtessis, J.M. Senior</i>	Th.B4.2 11:05	Methods to improve performance of the 1.3 μm oxide-confined GaInNAs/GaAs QW VCSELs (<i>Invited</i>) <i>R.P. Sarzala, W. Nakwaski</i>
Th.B1.3 11:40	Methods for evaluation of the Euler gamma function in the complex field and their application in the computational electromagnetics (<i>Invited</i>) <i>G.N. Georgiev, M.N. Georgieva-Grosse</i>	Th.B2.3 11:30	Light manipulation in resonant photonic devices (<i>Invited</i>) <i>C. Ciminelli, C.E. Campanella, F. Dell'Olio, M.N. Armenise</i>	Th.B3.3 11:40	Genetic algorithm optimisation of the SNR for indoor optical wireless communication systems (<i>Invited</i>) <i>M.D. Higgins, R.J. Green, M.S. Leeson, E.L. Hines</i>	Th.B4.3 11:25	Ultra fast detection based on SiGe thin layers (<i>Invited</i>) <i>B.I. Lembrikov, Y. Ben-Ezra</i>
Th.B1.4 12:00	On the roots of certain transcendental equations, involving complex confluent hypergeometric functions and their application in the theory of waveguides (<i>Invited</i>) <i>M.N. Georgieva-Grosse, G.N. Georgiev</i>	Th.B2.4 11:50	A scanning fiber-based microcavity for controlling single molecule emission <i>C. Toninelli, Y. Delley, T. Stöferle, A. Renn, S. Götzinger, V. Sandoghdar</i>	Th.B3.4 12:00	Generalized hybrid subcarrier/amplitude/phase/polarization LDPC-coded modulation based FSO networking <i>I.B. Djordjevic, H.G. Batshon</i>	Th.B4.4 11:45	The nonlinear absorption and phase recovery of quantum dot based reverse-biased waveguide electro-absorbers (<i>Invited</i>) <i>T. Piwonski, J. Pulka, G. Madden, J. Houlihan, G. Huyet, E.A. Viktorov, T. Erneux, P. Mandel</i>
Th.B1.5 12:20	Fast parallel simulation of fiber optical communication systems accelerated by a graphics processing unit <i>S. Pachnicke, A. Chachaj, M. Helf, P.M. Krummrich</i>	Th.B2.5 12:05	Tunable homo- and hetero-atomic photonic molecules <i>F. Intonti, F. Riboli, S. Vignolini, D.S. Wiersma, L. Balet, L.H. Li, M. Francardi, A. Gerardino, A. Fiore, M. Gurioli</i>	Th.B3.5 12:15	Fuzzy logic control based modulation optimisation for the indoor optical wireless channel <i>Y. Zeng, R. Green, M. Leeson</i>	Th.B4.5 12:05	FRET in self-assembled CdTe quantum dot nanoclusters <i>C. Higgins, M. Lunz, A.L. Bradley, V.A. Gerard, S. Byrne, Y.K. Gun'ko</i>
						Th.B4.6 12:20	Ultrafast direct written waveguide Bragg gratings utilizing a high pulse energy femtosecond oscillator <i>C. Miese, M.J. Withford, A. Fuerbach</i>

Closing Ceremony & Announcement of ICTON 2011 (12:40) Plenary hall